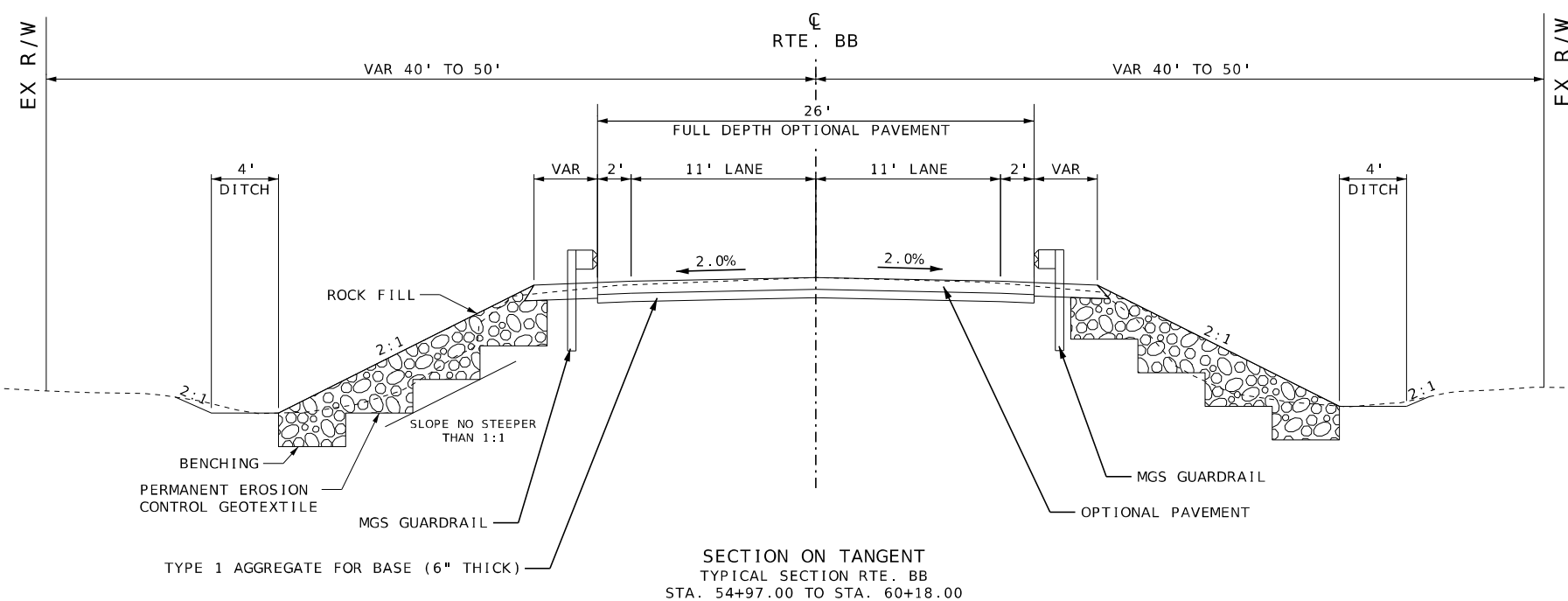
[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

2000 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013

Missouri Cert. of
Authority #2003007599

WILSON
& COMPANY
ENGINEERS & ARCHITECTS



NEW OPTIONAL PAVEMENT STA 56+75 TO 57+06.33
BRIDGE APPR SLAB 57+06.33 TO 57+26.33
BR #A9601 57+26.33 TO 58+43.39
BRIDGE APPR SLAB 58+43.39 TO 58+63.39
NEW OPTIONAL PAVEMENT STA 58+63.39 TO 58+90

ROCK FILL LIMITS

RT STA	54+97.0	TO	57+15.4
RT STA	58+72.6	TO	60+18.0
LT STA	55+50.0	TO	56+97.2
LT STA	58+54.2	TO	59+25.0

TYPE 2 ROCK BLANKET LIMITS

LT STA 56+97.2	TO RT STA 57+15.4
LT STA 58+54.2	TO RT STA 58+72.6

Location	HMA DESIGN	PCCP DESIGN
RTE BB	<u>10.0" HMA</u> 2" BP-1 w/ PG64-22 OVER 8" BIT. BASE w/ PG64-22	<u>8.0" PCCP</u> 15' JOINT SPACING, 1 1/4" DOWELS

TYPICAL SECTION SHEET
SHEET 1 OF 1

REMOVAL OF IMPROVEMENTS						
BEGIN STATION	END STATION	OFFSET	DESCRIPTION	QUANTITY	UNITS	REMARKS
A9601 - ROUTE BB						
56+75		RT/LT	SAW CUT	22	LF	FOR INFO ONLY
58+90		RT/LT	SAW CUT	22	LF	FOR INFO ONLY
55+42	57+40	RT	GUARDRAIL	198	LF	
55+97	57+21	LT	GUARDRAIL	124	LF	
59+60	57+20	LT	FENCE	41	LF	FROM EX BRIDGE TO R/W
57+01	57+45	RT	FENCE	57	LF	FROM EX BRIDGE TO R/W
58+10	58+24	LT	FENCE	33	LF	FROM EX BRIDGE TO R/W
58+51	58+81	RT	FENCE	44	LF	FROM EX BRIDGE TO R/W
58+30	59+15	LT	GUARDRAIL	85	LF	
58+48	59+72	LT	GUARDRAIL	124	LF	
TOTAL				1	LS	
USE				1	LS	

EARTHWORK			
BEGIN STATION	END STATION	OFFSET	UNCLASS EXCAVATION (CY)
A9601 - ROUTE BB			
54+97	57+35	LT/RT	752
58+34	60+18	LT/RT	407
TOTAL			1159
USE			1159

PAVEMENT				
BEGIN STATION	END STATION	OFFSET	TYPE 1 AGGREGATE BASE (6") (SY)	OPTIONAL PAVEMENT (SY)
A9601 - ROUTE BB				
56+75	57+06.33	CL	90.57	90.57
57+06.33	57+26.33	CL	75.00	
58+43.39	58+63.39	CL	75.00	
58+63.39	58+90	CL	76.88	76.88
TOTAL			292.45	167.45
USE			293	167.5

GUARDRAIL						
BEGIN STATION	END STATION	OFFSET	MGS GUARDRAIL (LF)	MASH CRASHWORTHY END TERMINAL (EA)	MGS END ANCHOR (EA)	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/NO CURB) (EA)
A9601 - ROUTE BB						
55+27.5	57+40	RT	125.0	1		1
55+82.5	57+20	LT	50.0	1		1
58+30	59+27	LT	12.5	1		1
58+50	59+87.5	RT	125.0		1	1
TOTAL			312.5	3	1	4
USE			313	3	1	4

CLASS 1 PAVEMENT MARKING PAINT TYPE P BEADS					
BEGIN STATION	END STATION	OFFSET	4" YELLOW (LF)	4" WHITE (LF)	REMARKS
A9601 - ROUTE BB					
56+75	58+90	CL	54		INTERMITTENT CENTERLINE
56+75	58+90	LT/RT		430	EDGELINES
TOTAL			54	430	
USE			54	430	

TEMPORARY EROSION CONTROL						
BEGIN STATION	END STATION	OFFSET	SILT FENCE (LF)	ROCK DITCH CHECK (LF)	TYPE C BERM (LF)	SEDIMENT REMOVAL (CY)
A9601 - ROUTE BB						
54+97	57+00	RT	203			2.0
55+50	57+00	LT	150			1.5
57+00		RT		8		1.0
57+00		LT		8		1.0
59+53	59+73	LT				
58+50	59+25	LT	75			0.8
58+75	60+18	RT	143			1.4
57+00	57+00	LT/RT			171	1.7
58+50	58+73	LT/RT			160	1.6
TOTAL			571	16	331	11.0
USE			571	16	331	11

PERMANENT EROSION CONTROL							
BEGIN STATION	END STATION	OFFSET	FURNISHING TYPE 2 ROCK BLANKET (CY)	PLACING TYPE 2 ROCK BLANKET (CY)	FURNISHING ROCK FILL (CY)	PLACING ROCK FILL (CY)	PERMANENT EROSION CONTROL GEOTEXTILE (SY)
A9601 - ROUTE BB							
54+97	57+15.4	RT			418.5	418.5	418
56+97.2	57+15.4	LT/RT	159.6	159.6			239
55+50.4	56+97.2	LT			319.9	319.9	320
58+54.2	58+72.6	LT/RT	153.2	153.2			230
58+54.2	59+25	LT			173.9	173.9	174
58+72.6	60+17.6	RT			298.9	298.9	299
TOTAL			312.8	312.8	1211	1211	1680
USE			313	313	1211	1211	1680

SEEDING & MULCHING - COOL SEASON GRASSES	
TOTAL ACRES	
0.1	
FOR INFORMATION ONLY	
TEMPORARY SEEDING	
TOTAL ACRES	
0.1	
FOR INFORMATION ONLY	
MULCHING	
TOTAL ACRES	
0.2	
FOR INFORMATION ONLY	
USE 1 LUMP SUM - SEE JSP	

ADDITIONAL MOBILIZATION FOR SEEDING AND MULCHING	
EACH	
4	

MOBILIZATION	
1 LUMP SUM	

CONTRACTOR FURNISHED SURVEYING & STAKING	
1 LUMP SUM	

SUMMARY OF QUANTITIES
SHEET 1 OF 2

STATE OF MISSOURI

MATTHEW B. FIELDS

NUMBER PE-2024005189

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED

10/27/2025

ROUTE BB

DISTRICT SW

STATE MO

SHEET NO. 3

COUNTY JASPER

JOB NO. JSR0137

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
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105 WEST CAPITOL
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MoDOT

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

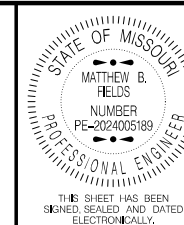
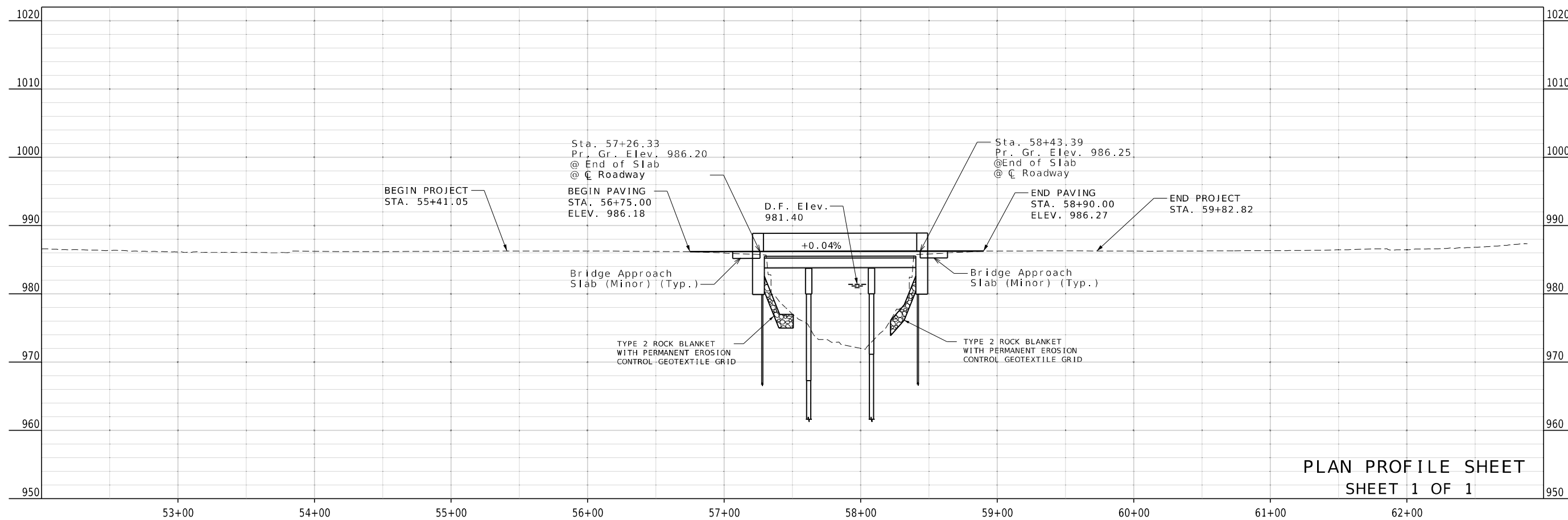
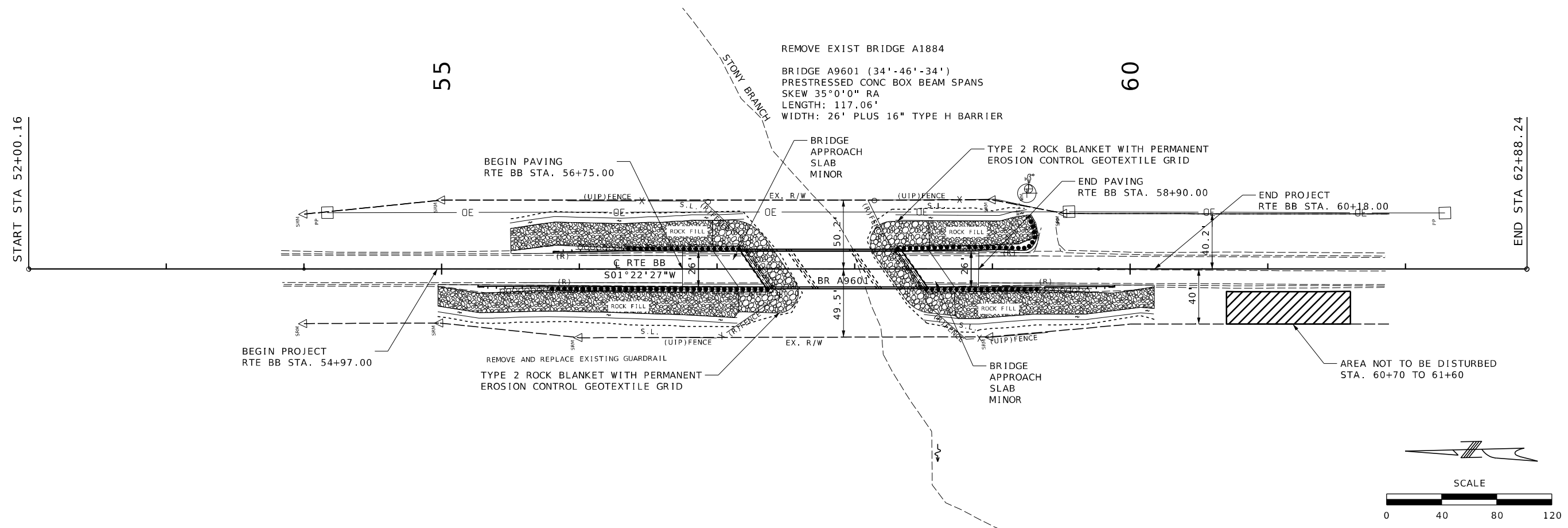
WILSON & COMPANY

ENGINEERS & ARCHITECTS

Missouri Cert. of Authority #2003007599

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SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN	DESCRIPTION	SIGN	SIZE	AREA	QTY	TOTAL	RELOC	TOTAL	SIGN	DESCRIPTION	ITEM	TOTAL	EFFECTIVE: 07-01-2025			
IN.	SQ.FT.	EACH	SQ.FT.	EACH	SQ.FT.	NO.	IN.		SQ.FT.	EACH	SQ.FT.	EACH	SQ.FT.	NO.	NUMBER	QTY		DESCRIPTION					
WARNING SIGNS									GUIDE SIGNS														
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)	E05-1	36X48	12.00						GORE EXIT	6122008			IMPACT ATTENUATOR 40 MPH (SAND BARRELS)		
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)	E05-2	48X36	12.00						EXIT OPEN	6122009			IMPACT ATTENUATOR 45 MPH (SAND BARRELS)		
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)	E05-2a	48X36	12.00						EXIT CLOSED	6122010			IMPACT ATTENUATOR 50 MPH (SAND BARRELS)		
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)	GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES	6122012			IMPACT ATTENUATOR 55 MPH (SAND BARRELS)		
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)	GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES	6122014			IMPACT ATTENUATOR 60 MPH (SAND BARRELS)		
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)	GO20-2	48X24	8.00						END ROAD WORK	6122017			IMPACT ATTENUATOR 65 MPH (SAND BARRELS)		
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)	GO20-4	36X18	4.50						PILOT CAR FOLLOW ME	6122019			IMPACT ATTENUATOR 70 MPH (SAND BARRELS)		
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)	GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW	6122020			REPLACEMENT SAND BARREL		
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW	6122030			IMPACT ATTENUATOR (RELOCATION)		
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)	6122040			WORK ZONE CRASH CUSHION (NARROW)		
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4-8a	24X18	3.00	2	6.00				END DETOUR	6122041			WORK ZONE CRASH CUSHION (RELOCATION)		
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-9L	48X36	12.00						DETOUR (LEFT)	6123001			TRUCK MOUNTED ATTENUATOR (TMA)		
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)	MO4-9R	48X36	12.00						DETOUR (RIGHT)	6161012			BUOYS (BOATS KEEP OUT)		
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4-9P	48X12	4.00						STREET NAME (PLAQUE)	6161013			BUOYS (NO WAKE)		
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)	6161014			SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)		
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)	6161020			CHANNELIZER (DRUM-LIKE)		
WO1-8	18X24	3.00						CHEVRON (SYMBOL)	REGULATORY SIGNS									6161022			CHANNELIZER (CONE)		
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-1	48X48	13.25						STOP	6161025			CHANNELIZER (TRIM-LINE)		
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)	R1-2	48TRI.	6.93						YIELD	6161026			CHANNELIZER (VERTICAL PANEL)		
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)	R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)	6161030	8		TYPE 3 MOVEABLE BARRICADE		
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)	R1-3P	30X12	2.50						ALL WAY (PLAQUE)	6161033			DIRECTION INDICATOR BARRICADE		
WO3-4	48X48	16.00						BE PREPARED TO STOP	R2-1	36X48	12.00						SPEED LIMIT XX	6161040			FLASHING ARROW PANEL		
WO3-5	48X48	16.00						SPEED LIMIT AHEAD	R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)	6161047			TYPE 3 OBJECT MARKER		
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)	R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)	6161055			SEQUENTIAL FLASHING WARNING LIGHT		
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)	R3-3	36X36	9.00						NO TURNS	6161070			TUBULAR MARKER		
WO4-1aL	48X48	16.00						MERGE (LEFT)	R3-4	48X48	16.00						NO U-TURN (SYMBOL)	6161095			RADAR SPEED ADVISORY SYSTEM		
WO4-1aR	48X48	16.00						MERGE (RIGHT)	R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT				CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED		
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS	R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT	6161096			CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO5-3	48X48	16.00						ONE LANE BRIDGE	R4-1	36X48	12.00						DO NOT PASS	6161098A			CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO5-5	48X48	16.00						NARROW LANES	R4-2	36X48	12.00						PASS WITH CARE				CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)	R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)	6161099	2		WORK ZONE TRAFFIC SIGNAL SYSTEM		
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)	R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)	6162000A			TEMPORARY LONG-TERM RUMBLE STRIPS		
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)	R5-1	30X30	6.25						DO NOT ENTER	6162002			TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED		
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)	R5-1a	36X24	6.00						WRONG WAY	6173600D			TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED		
WO8-1	48X48	16.00						BUMP	R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)				TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION		
WO8-2	48X48	16.00						DIP	R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)	6173700B			TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED		
WO8-3	48X48	16.00						PAVEMENT ENDS	R6-2L	24X30	5.00						ONE WAY (LEFT)				RELOCATING TEMP. TRAFFIC BARRIER		
WO8-4	48X48	16.00						SOFT SHOULDER	R6-2R	24X30	5.00						ONE WAY (RIGHT)	6175010A			RELOCATING TEMP. TRAFFIC BARRIER ANCHORED		
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)	R9-9	24X12	2.00						SIDEWALK CLOSED	6175011B			RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS		
WO8-6	48X48	16.00						TRUCK CROSSING	R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE	6175020A			RELOCATING TEMP. TRAFFIC BARRIER HEIGHT		
WO8-6c	48X48	16.00						TRUCK ENTRANCE	R10-6	24X36	6.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE	6208064A			TEMPORARY RAISED PAVEMENT MARKER		
WO8-7	36X36	9.00						LOOSE GRAVEL	R11-2	48X30	10.00	2	20.00				STOP HERE ON RED (45° ARROW)	9029400			TEMPORARY TRAFFIC SIGNALS		
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL	R11-3a	60X30	12.50						ROAD CLOSED	9029401			TEMPORARY TRAFFIC SIGNALS AND LIGHTING		
WO8-9	48X48	16.00						LOW SHOULDER	R11-4	60X30	12.50	2	25.00				ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY						
WO8-11	48X48	16.00						UNEVEN LANES	CONST-3A	60X48	20.00						ROAD CLOSED TO THRU TRAFFIC						
WO8-12	48X48	16.00						NO CENTER LINE	CONST-3X	56X12	4.67						FINE SIGN						
WO8-15	48X48	16.00						GROOVED PAVEMENT	MISCELLANEOUS SIGNS														
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)	CONST-5	48X36	12.00						POINT OF PRESENCE						
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)	CONST-5	96X48	32.00						POINT OF PRESENCE						
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)	CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE						
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)	MO4-12	36X60	15.00	37	555.00				DETOUR ASSEMBLIES						
W10-1	42RND.	9.62						RAILROAD CROSSING															
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)															
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)															
WO12-2x	24X18	3.00						LOW CLEARANCE (PLAQUE)															



DATE PREPARED
10/27/2025

ROUTE	ST
BB	M

BB	M
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DISTRICT	SHEET
SW	

511

COUNTY
JASPER

JOB NO.
LSB0137

CONTRACT ID	9SR0157
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PROJECT NO.

BRIDGE NO.

[illegible]

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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



105 WEST CAPITAL
JEFFERSON CITY, MO 65102

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Kansas City, MO 64131
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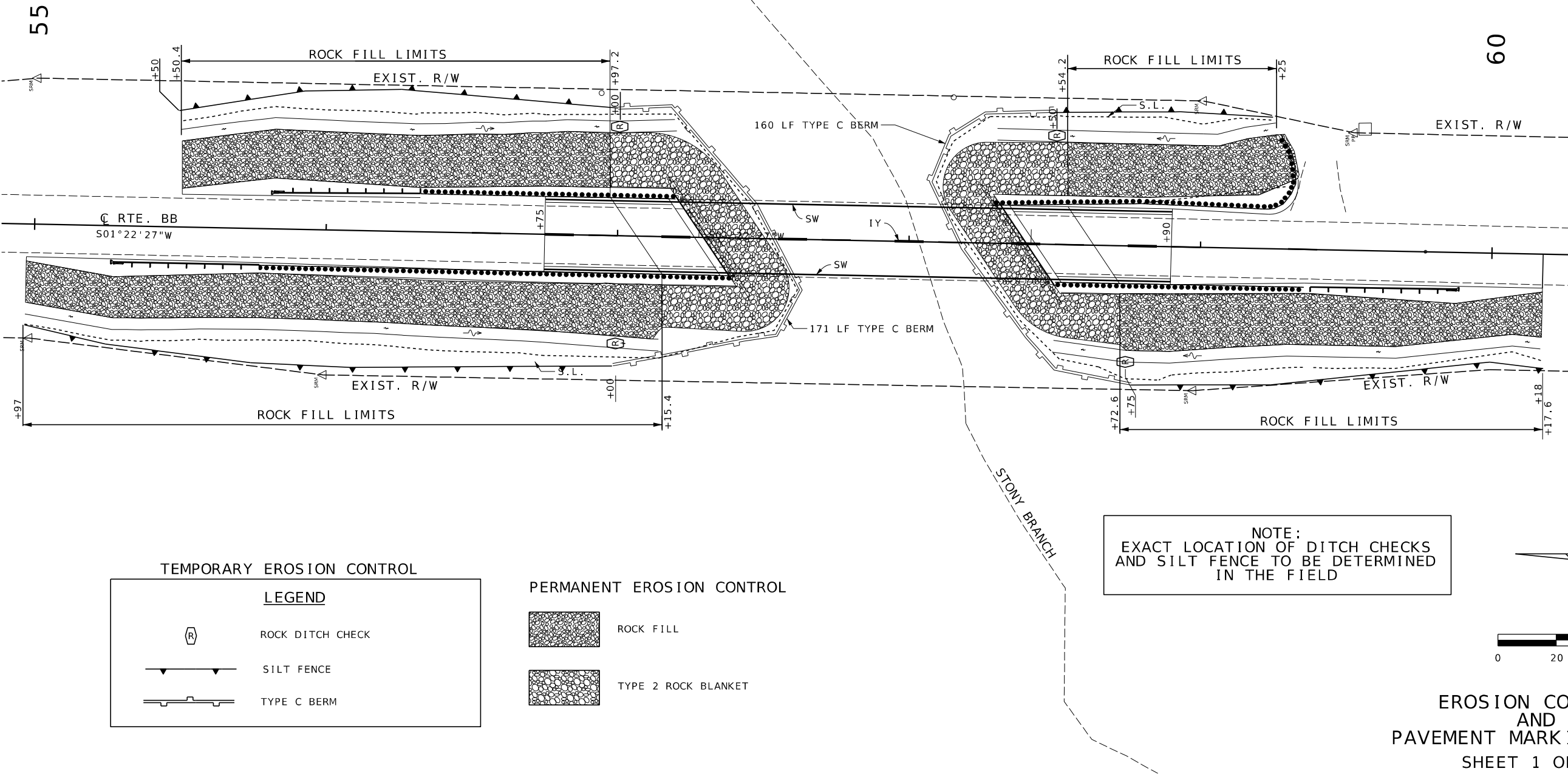
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PAVEMENT MARKING LEGEND

SW - 4" SOLID WHITE LINE
IY - 4" INTERMITTENT YELLOW LINE (10' MARK, 30' SKIP)



TEMPORARY EROSION CONTROL

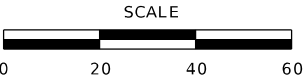
LEGEND

- ROCK DITCH CHECK
- SILT FENCE
- TYPE C BERM

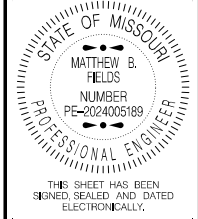
PERMANENT EROSION CONTROL

- ROCK FILL
- TYPE 2 ROCK BLANKET

NOTE:
EXACT LOCATION OF DITCH CHECKS
AND SILT FENCE TO BE DETERMINED
IN THE FIELD



EROSION CONTROL
AND
PAVEMENT MARKING SHEET
SHEET 1 OF 1



DATE PREPARED 10/27/2025	
ROUTE BB	STATE MO
DISTRICT SW	SHEET NO. 6
COUNTY JASPER	
JOB NO. JSR0137	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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1-888-ASK-MODOT (1-888-275-6636)

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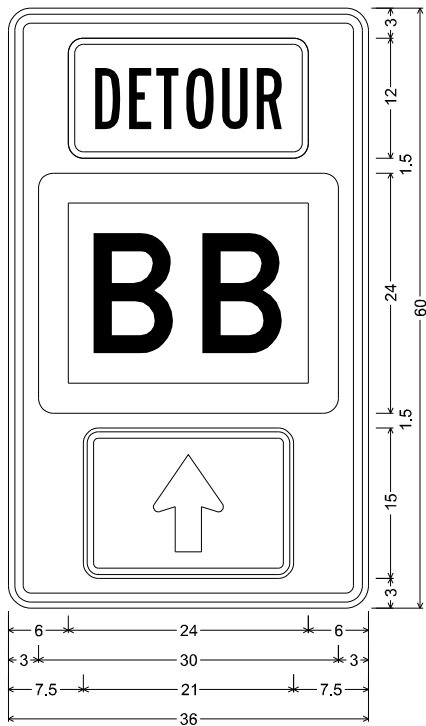
ANY EXISTING SIGNS THAT CONFLICT WITH THIS TRAFFIC CONTROL PLAN SHALL BE COVERED.
ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.
SIGNING SHOWN SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING PROPER TRAFFIC CONTROL SETUPS THROUGHOUT CONSTRUCTION AS DESCRIBED IN THESE PLANS OR AS APPROVED BY THE ENGINEER.

TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

*** USE CMS BOARD TO WARN TRAFFIC OF ROUTE BB CLOSURE NORTH OF OAK RD AND FOLLOW DETOUR

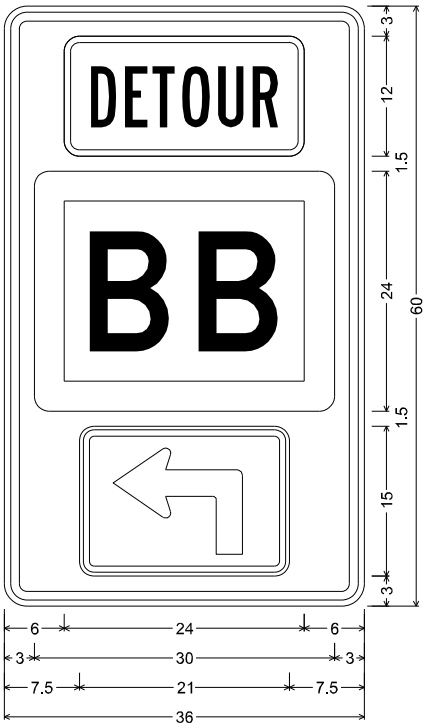
70



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

	6.000
	3.000
	7.500

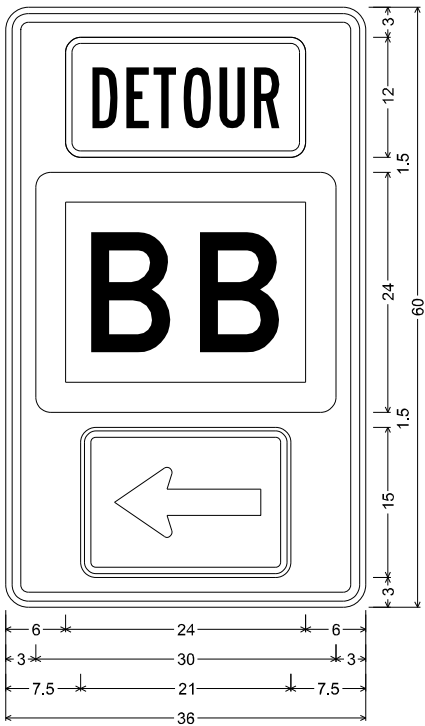
71



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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	3.000
	7.500

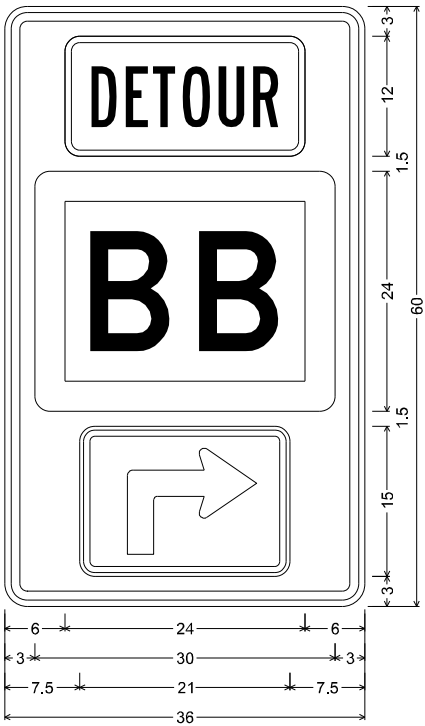
72



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

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	3.000
	7.500

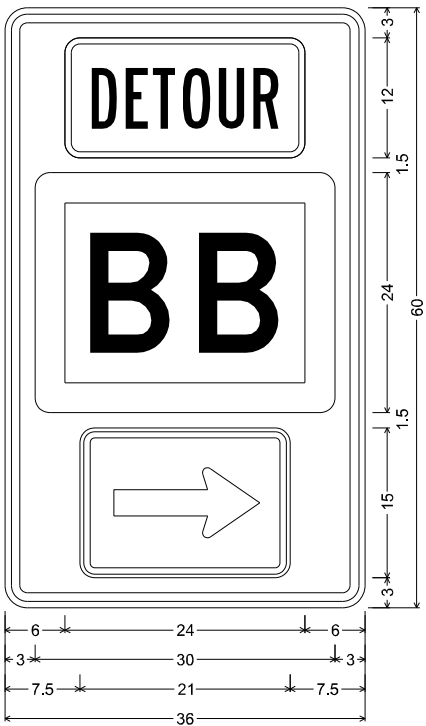
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MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

	6.000
	3.000
	7.500

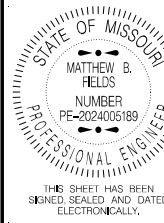
74



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Table of letter and object lefts

	6.000
	3.000
	7.500

TRAFFIC CONTROL SHEET
SHEET 2 OF 2



DATE PREPARED 10/27/2025	
ROUTE BB	STATE MO
DISTRICT SW	SHEET NO. 8
COUNTY JASPER	
JOB NO. JSR0137	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

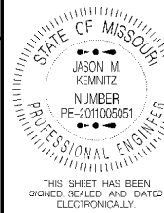
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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Fax (816) 942-3013
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WILSON & COMPANY
ENGINEERS & ARCHITECTS

(34'-46'-34') PRESTRESSED CONCRETE SPREAD BOX BEAM SPANS
SKEW: 35° R.A.

SEC/SUR 3 & 4 TWP 29N RGE 30W



DATE PREPARED
11/10/2025

ROUTE BB STATE MO

DISTRICT BR SHEET NO. 1

COUNTY JASPER

JOB NO. JSR0137

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9601

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

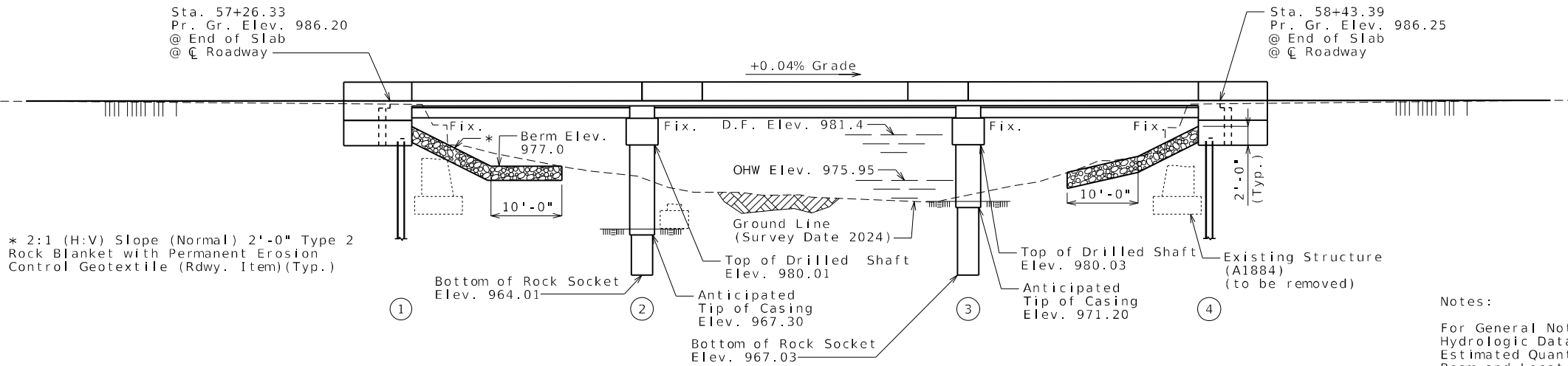
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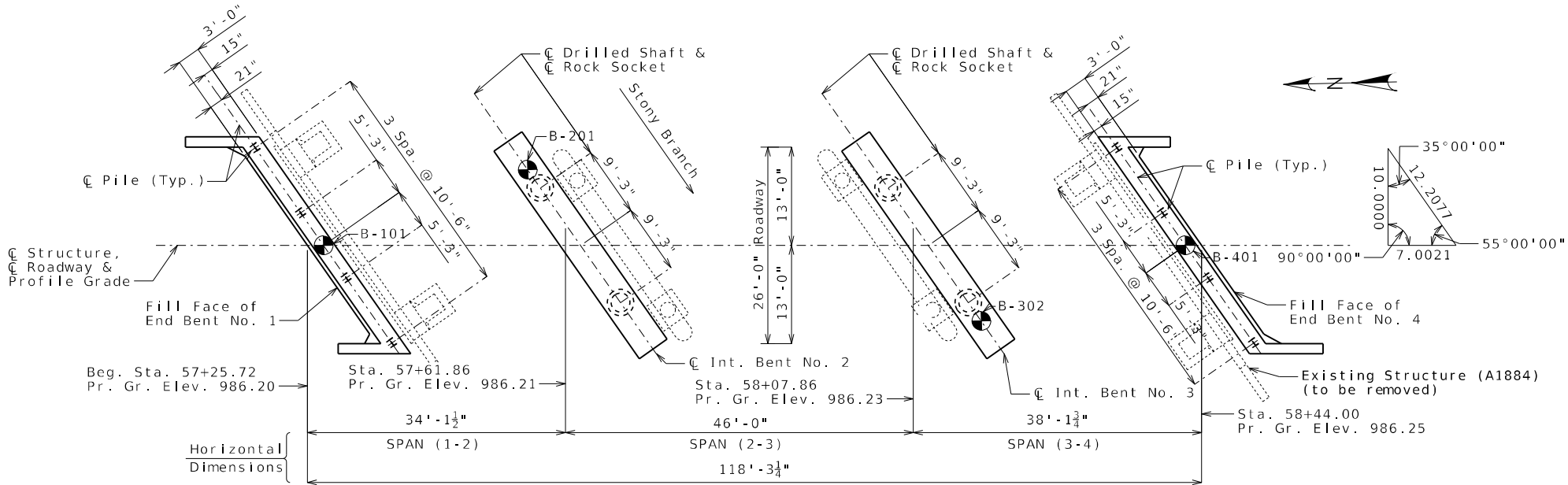


GENERAL ELEVATION

Notes:

For General Notes, Foundation data, Hydrologic Data, Estimated Quantities, Estimated Quantities for Slab on Concrete Beam and Location sketch, see Sheet No. 2.

Roadway fill shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.



PLAN

⊕ Indicates location of borings.

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet No. 22 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

C.P. #1 -
N. 404444.373, E. 2877077.988, ELEV. 983.376

C.P. #2 -
N. 403710.566, E. 2877060.310, ELEV. 995.371

C.P. #3 -
N. 405742.683, E. 2877110.868, ELEV. 993.421

BRIDGE: ROUTE BB OVER STONY BRANCH

ROUTE BB FROM ROUTE N TO ROUTE 96
ABOUT 1.1 MILES SOUTH OF ROUTE N
BEGINNING STATION 57+25.72

Designed July 2025
Detailed July 2025
Checked Sept.2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 22

Estimated Quantities				
Item		Substr.	Superstr.	Total
Removal of Miscellaneous ACM (Non-Friable)	sq. foot		9	9
Class 1 Excavation	cu. yard	70		70
Removal of Bridge (A1884)	lump sum			1
Bridge Approach Slab (Minor)	sq. yard		125	125
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	38.0		38.0
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	20.0		20.0
Video Camera Inspection	each	4		4
Foundation Inspection Holes	linear foot	60.0		60.0
Sonic Logging Testing	each	4		4
Galvanized Structural Steel Piles (12 in.)	linear foot	140		140
Pre-Bore for Piling	linear foot	128		128
Pile Point Reinforcement	each	8		8
Class B Concrete (Substructure)	cu. yard	32.8		32.8
Class B-1 Concrete (Substructure)	cu. yard	39.6		39.6
Type H Barrier	linear foot		261	261
Slab on Concrete Beam	sq. yard		373	373
17 in., Prestressed Concrete Spread Box Beam	linear foot		340	340
Reinforcing Steel (Bridges)	pound	12,010		12,010
Slab Drain	each		20	20
Vertical Drain at End Bents	each			2
Plain Neoprene Bearing Pad	each		6	6
Laminated Neoprene Bearing Pad	each		12	12

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

Estimated Quantities for Slab on Concrete Beam		
Item		Total
Class B-2 Concrete	cu. yard	124
Reinforcing Steel (Epoxy Coated)	pound	33,810

Slab shall be cast-in-place with conventional forms or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

The table of Estimated Quantities for Slab on Concrete Beam represent the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Stay-In-Place Corrugated Steel Forms:

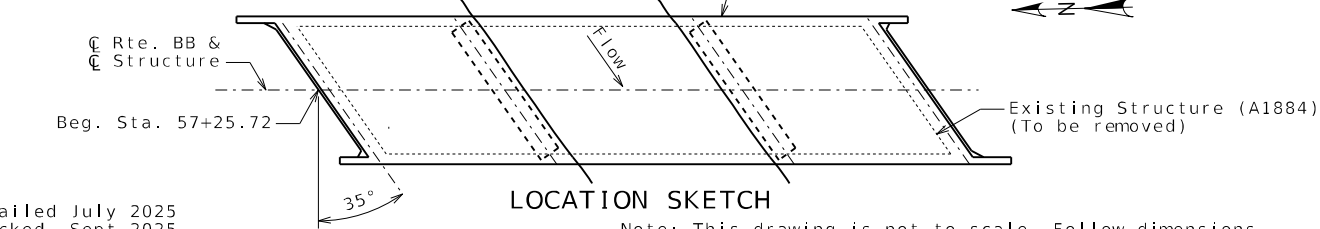
Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of beam flanges. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the flange. Welding on or drilling holes in the beam flanges will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for beam loading.

For stay-in-place corrugated steel form details, see Sheet No. 15.



General Notes:

Design Specifications:
2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
2023 AASHTO Guide Specifications for LRFD Seismic Bridge Design (3rd Ed.)
Seismic Design Category = A (Nonseismic)

Design Loading:
Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Simply-Supported, Non-Composite for dead load.
Continuous Composite for live load.

Design Unit Stresses:
Class B Concrete (Substructure) f'c = 3,000 psi
Class B-2 Concrete (Drilled Shafts & Rock Sockets) f'c = 4,000 psi
Class B-2 Concrete (Superstructure, except Prestressed Beams and Barrier) f'c = 4,000 psi
Class B-1 Concrete (Substructure) f'c = 4,000 psi
Class B-1 Concrete (Barrier) f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50) fy = 50,000 psi

For prestressed box beam stresses, see Sheets No. 9 & 10.

Neoprene Pads:
Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:
All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Traffic Handling:
Structure to be closed during construction. Traffic to be maintained on other routes during construction. See roadway plans for traffic control.

Foundation Data					
Type	Design Data	Bent Number			
		1	2	3	4
Load Bearing Pile	Pile Type and Size	HP 12x53	-	-	HP 12x53
	Number	ea 4	-	-	4
	Approximate Length Per Each	ft 18	-	-	17
	Pile Point Reinforcement	ea All	-	-	All
	Min. Galvanized Penetration (Elev.)	ft Full Length	-	-	Full Length
	Minimum Tip Penetration (Elev.)	ft 964.10	-	-	965.75
	Criteria for Min. Tip Penetration	Bear on Rock	-	-	Min. Embed.
	Pile Driving Verification Method	DF	-	-	DF
	Resistance Factor	0.4	-	-	0.4
	Minimum Nominal Axial Compressive Resistance	kip 390	-	-	390
Rock Socket	Number	ea -	2	2	-
	Foundation Material	-	Strong Rock	Strong Rock	-
	Elevation Range	ft -	965.3-941.7	969.2-941.2	-
	Minimum Nominal Axial Compressive Resistance (Side Resistance)	ksf -	35.0	35.0	-
	Minimum Nominal Axial Compressive Resistance (Tip Resistance)	ksf -	46.2	10.3	-

Load Bearing Pile:
Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

DF = FHWA-Modified Gates Dynamic Pile Formula

Prebore for piles at Bents No. 1 and 4 to elevations 964.10 and 965.75, respectively.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in the penetrations less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

Rock Socket (Drilled Shafts):
Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factors}}$ (Side Resistance + Tip Resistance)

Hydrologic Data	
Drainage Area = 6.1 mi ²	
Design Flood Frequency = 50 years	
Design Flood Discharge = 3,300 cfs	
Design Flood (D.F.) Elevation = 981.4	
Base Flood (100-year)	
Base Flood Elevation = 981.9	
Base Flood Discharge = 3,900 cfs	
Estimated Backwater = 1.0 ft	
Average Velocity thru Opening = 7.5 ft/s	
Freeboard (50-year)	
Freeboard = 2.3 ft	
Roadway Overtopping	
Overtopping Flood Discharge = 7,500 cfs	
Overtopping Flood Frequency = >500 years	
Overtopping Flood Elevation = 986.0	

STATE OF MISSOURI

JASON M. JOHNTZ

NUMBER PE-001003051

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 11/12/2025

ROUTE BB

DISTRICT BR

STATE MO

SHEET NO. 2

COUNTY JASPER

JOB NO. JSR0137

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9601

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

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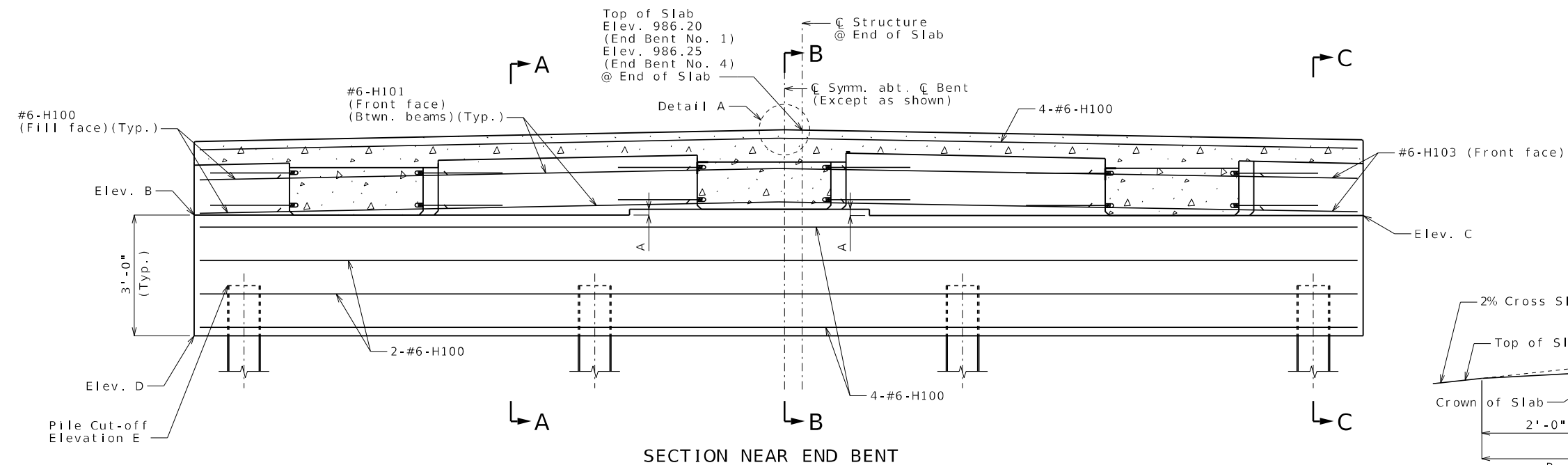
ENGINEERS & ARCHITECTS

Detailed July 2025
Checked Sept. 2025

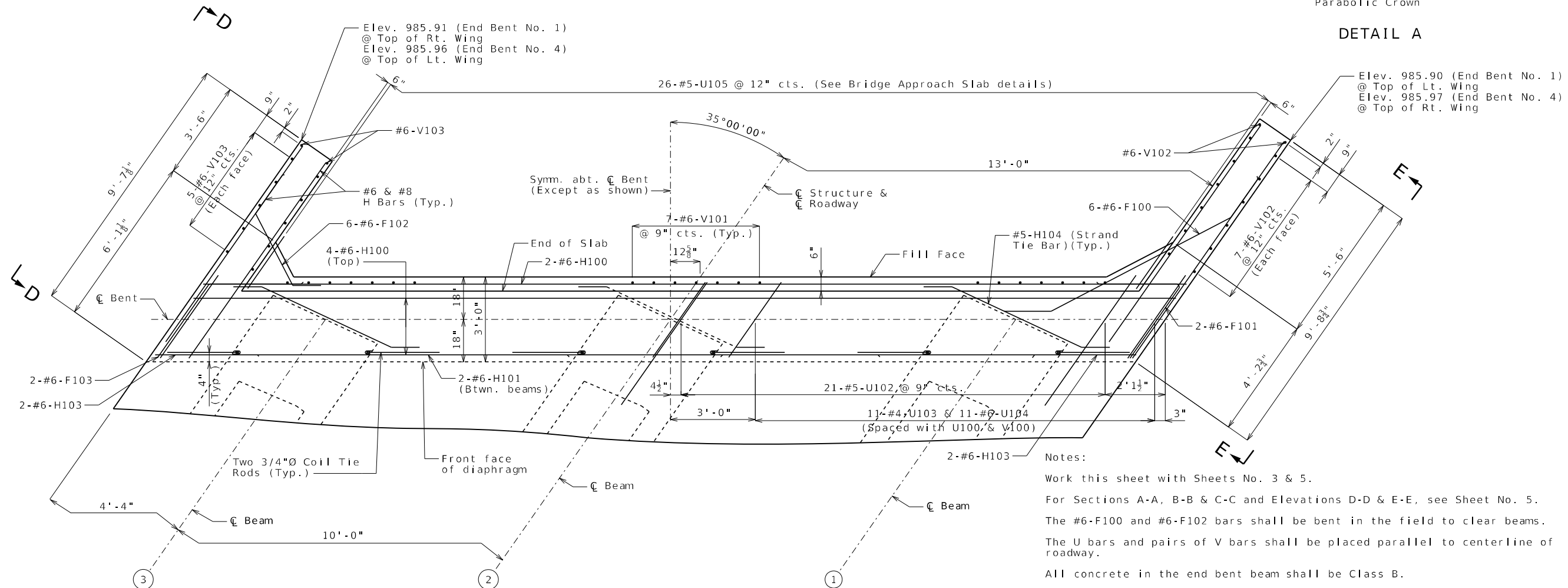
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Sheet No. 2 of 22

B_A9601_002_JSR0137_GENERAL NOTES QUANTITIES.dgn 4:29:06 PM 11/12/2025

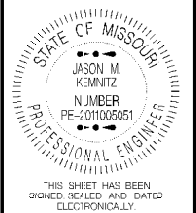


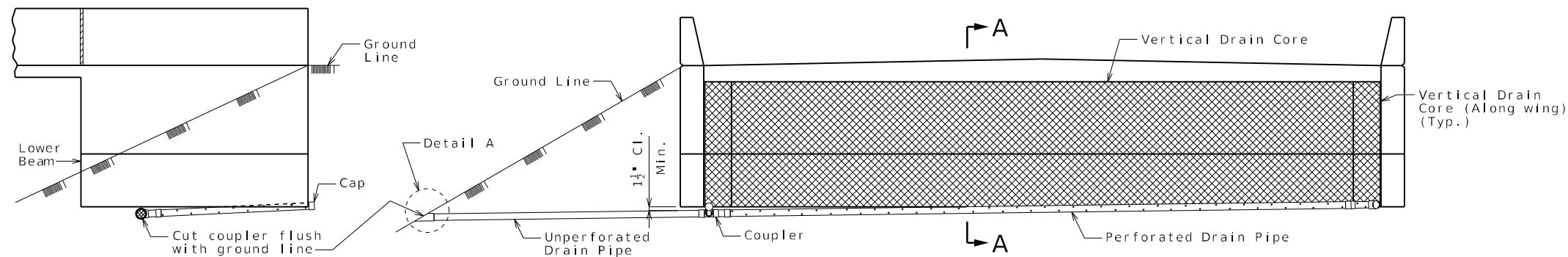
SECTION NEAR END BENT



END BEND DATA					
Bent No.	A	B	C	D	E
1	2 1/2"	983.70	983.70	980.70	982.20
4	2 1/2"	983.75	983.75	980.75	982.25

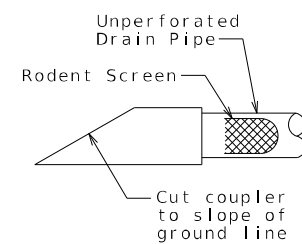
END BENTS NO. 1 & 4



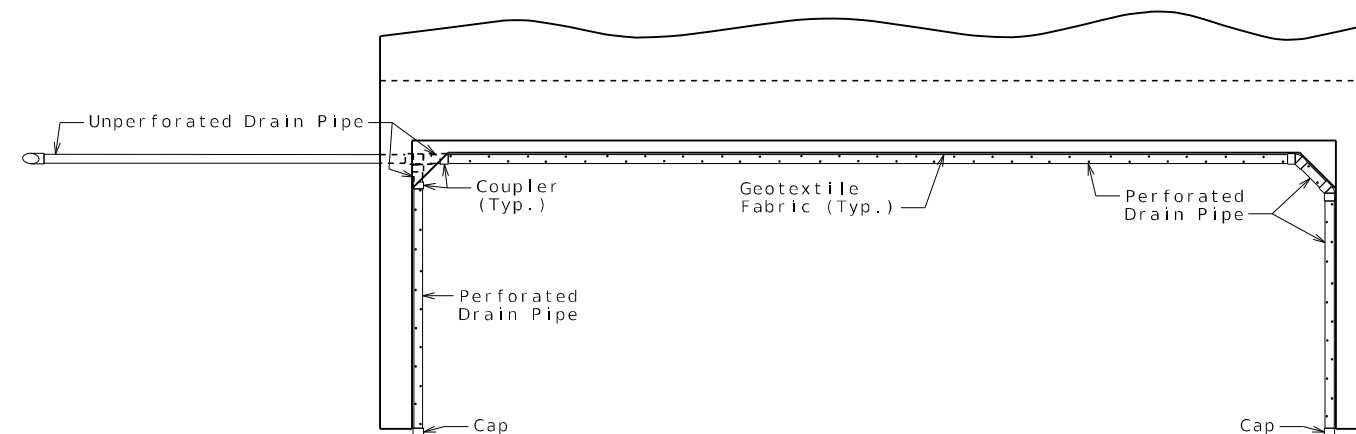


ELEVATION OF WING

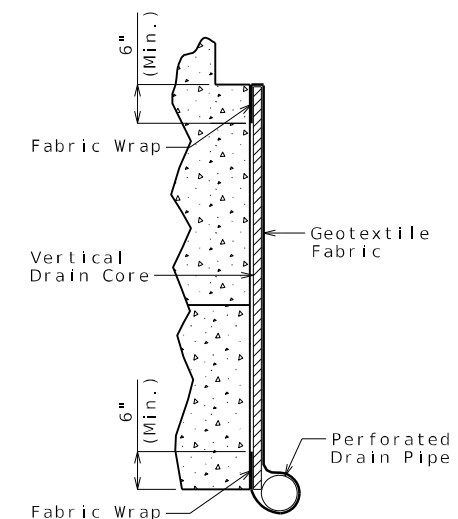
ELEVATION OF END BENT



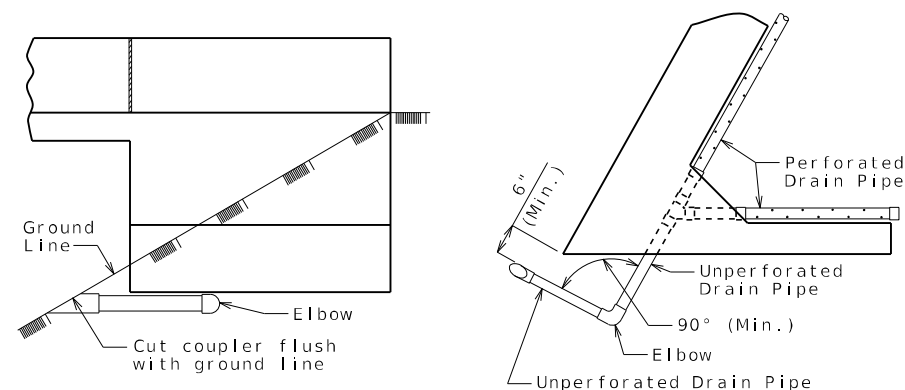
DETAIL A



PLAN OF END BENT



PART SECTION A-A
(Section thru wing similar)



ELEVATION OF WING

PART PLAN

OPTIONAL TURNED DRAIN

(Use only when straight drain is not practical.)

VERTICAL DRAIN AT END BENTS

(Squared end bent shown, skewed end bent similar)

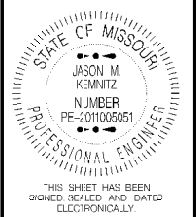
General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



DATE PREPARED

ROUTE	STATE
BB	MO

DISTRICT BR	SHEET NO 6
----------------	---------------

COUNTY

JASPER

JOB NO.

JSR0137

CONTRACT ID

PROJECT NO.

BRIDGE NO.

A9601

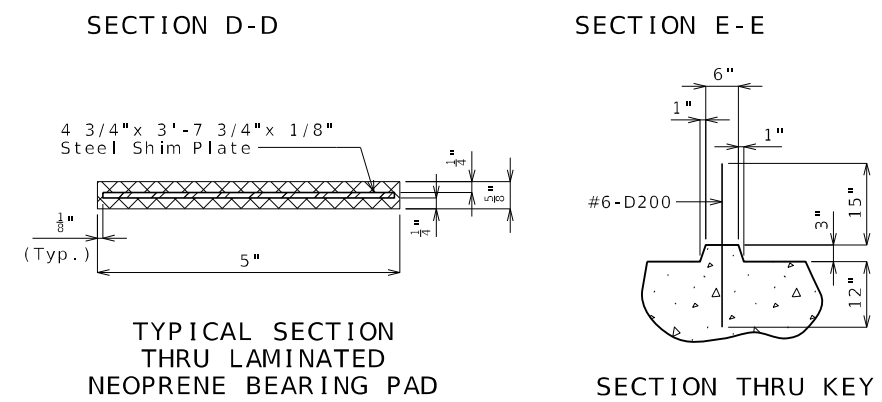
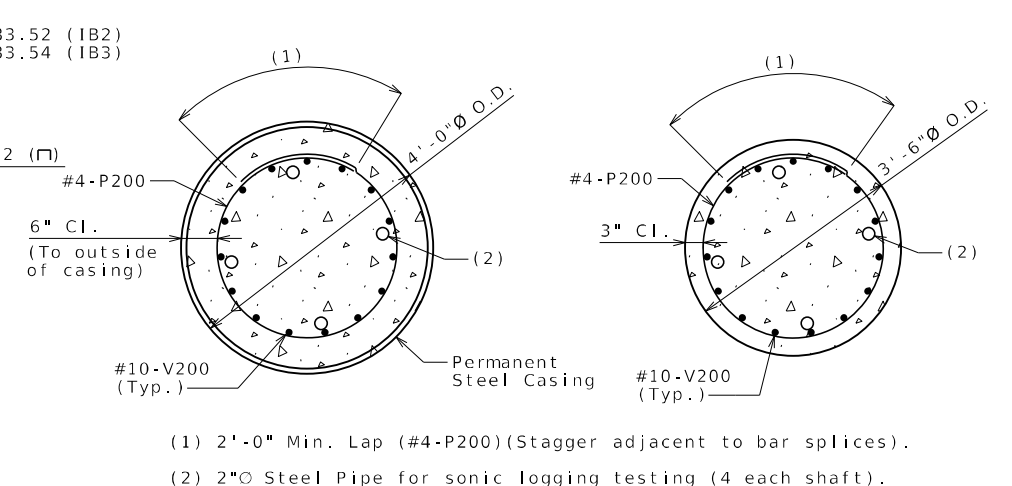
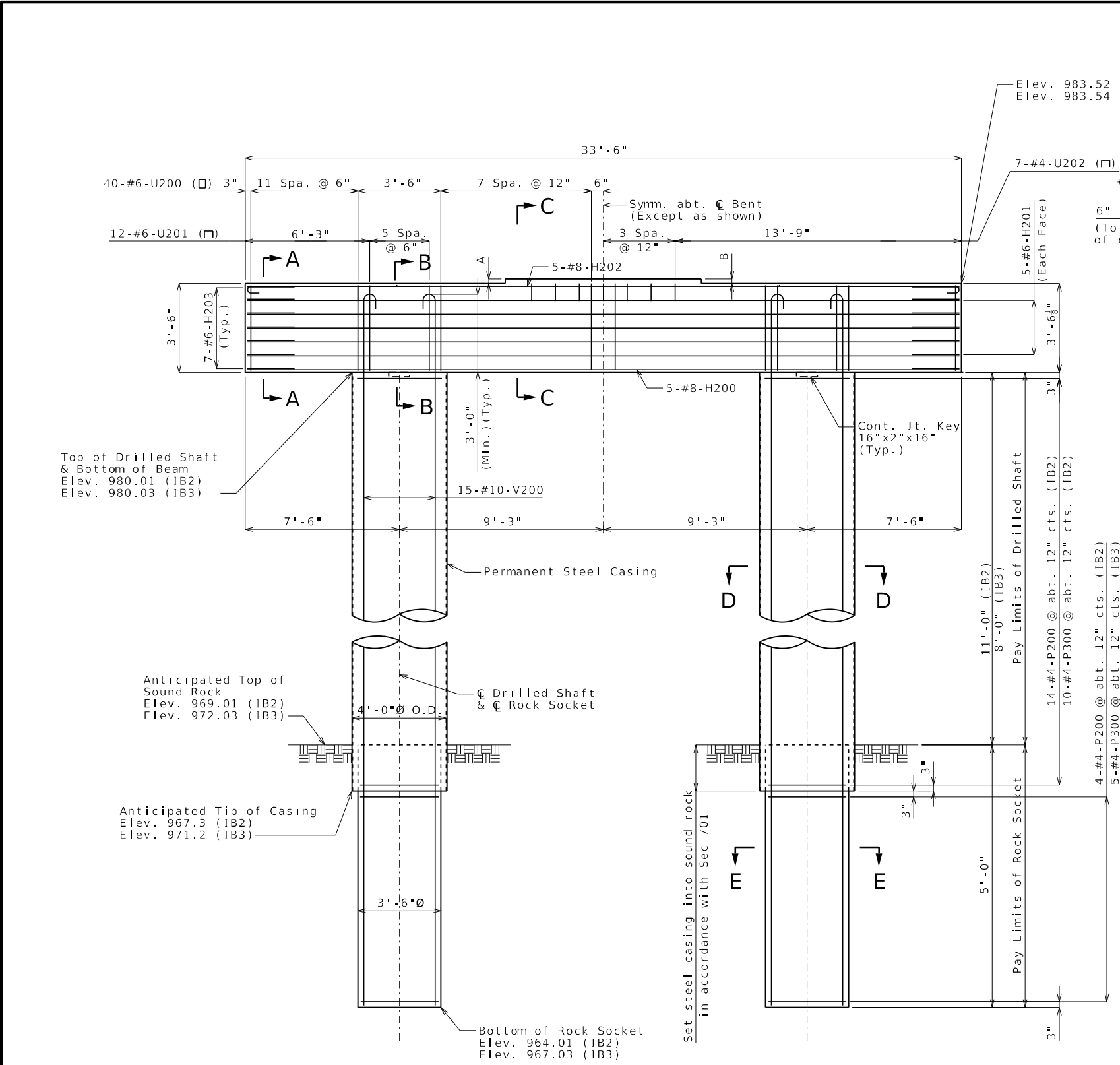
[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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Substructure Quantity Table for Bents No. 2 & 3			
Item		Quantity	
		IB2	IB3
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	22.0	16.0
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	10.0	10.0
Video Camera Inspection	each	2	2
Foundation Inspection Holes	linear foot	30.0	30.0
Sonic Logging Testing	each	2	2
Class B-1 Concrete (Substructure)	cu. yard	19.8	19.8
Reinforcing Steel (Bridges)	pound	6,220	5,788

These quantities are included in the Estimated Quantities table on Sheet No. 2.

Notes:

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

Work this sheet with Sheet No. 8.

For Sections A-A, B-B, & C-C, see Sheet No. 8.

All concrete in the intermediate bent beam shall be Class B-1.

Thickness of permanent steel casing shall be in accordance with Sec 701.

An additional 4 feet has been added to V-bar lengths and additional 8-#4-P200 and 8-#4-P300 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

At the contractor's option, the hooks of vertical bars embedded in the beam cap may be oriented inward or outward.

Bar marks for Bent No. 2 shown (200 series), Bent No. 3 similar (300 series).

(IB2) = Intermediate Bent No. 2

(IB3) = Intermediate Bent No. 3

Detailed July 2025
Checked Sept.2025

INTERMEDIATE BENTS NO. 2 & 3

INTERMEDIATE BENT DATA		
Bent No.	A	B
IB2	2 1/2"	2 1/2"
IB3	2 1/2"	2 1/2"

ELEVATION
(Keys not shown for clarity)

STATE OF MISSOURI

JASON M. KIMMEL

NUMBER PE-201100851

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 11/10/2025

ROUTE BB STATE MO

DISTRICT BR SHEET NO. 7

COUNTY JASPER

JOB NO. JSR0137

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9601

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

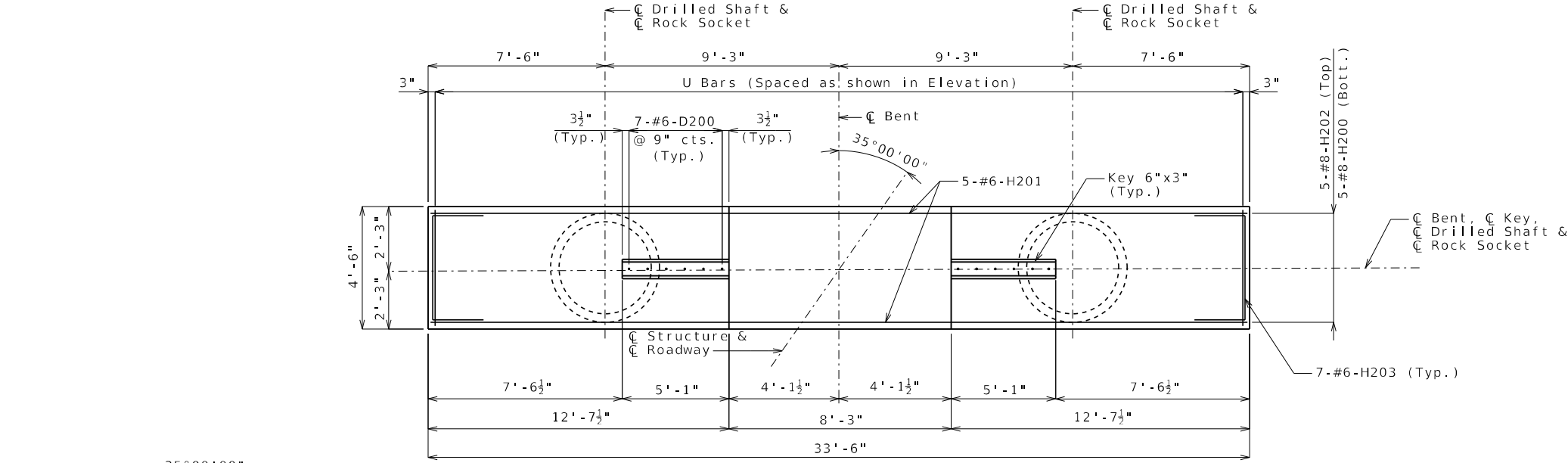
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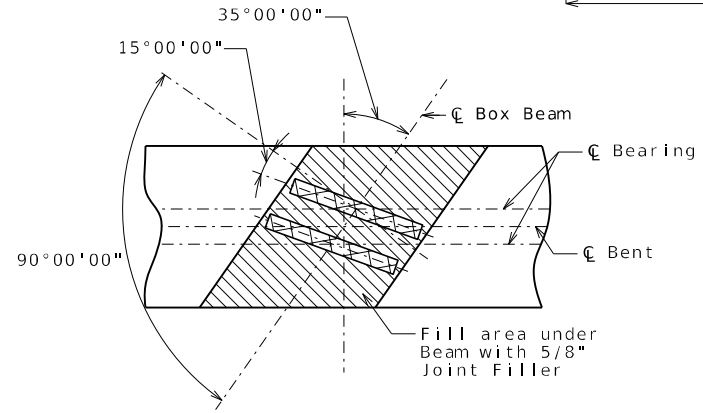
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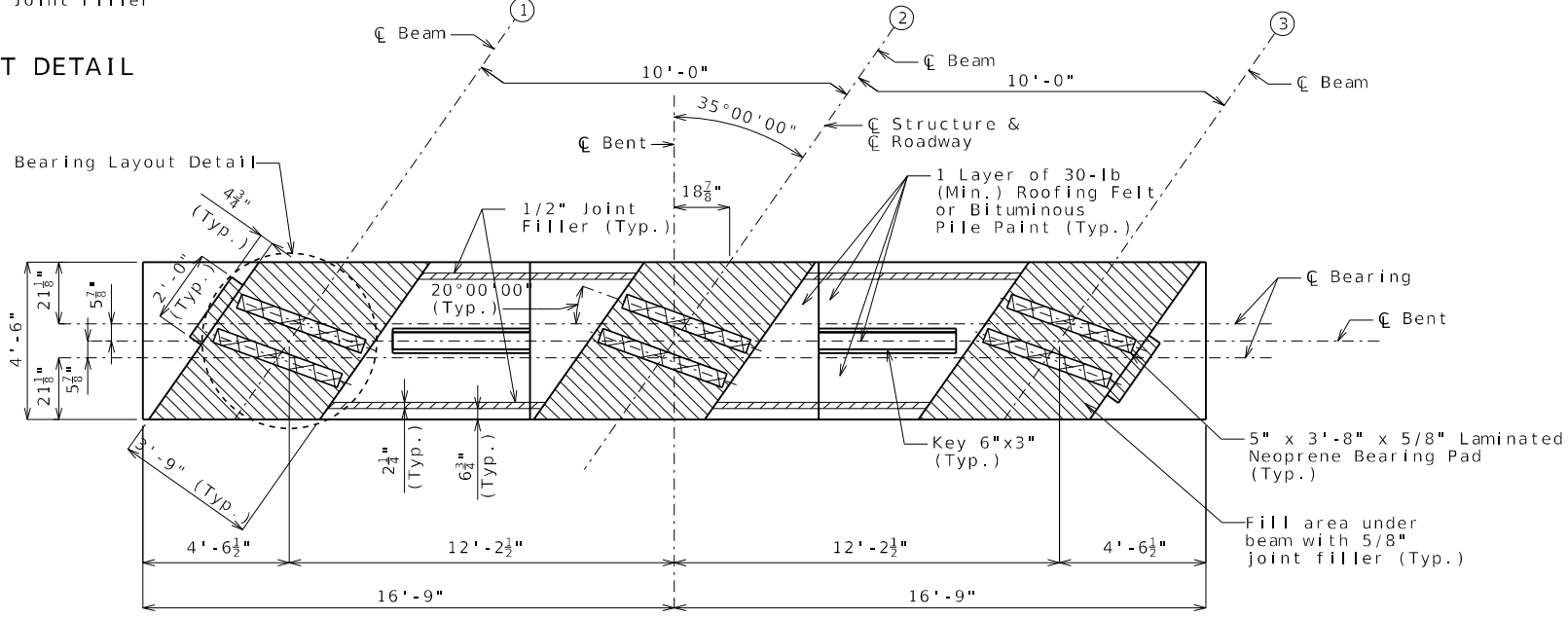
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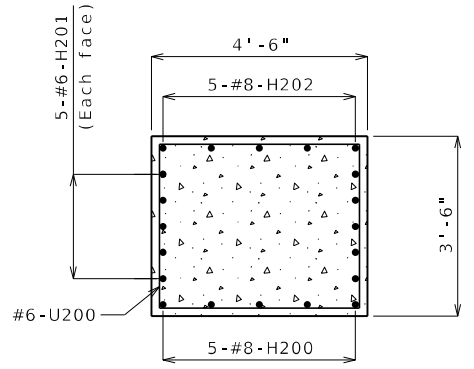
PLAN OF REINFORCING



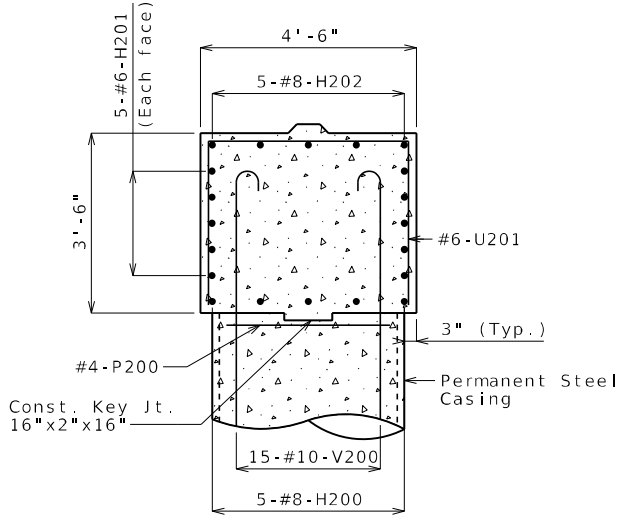
BEARING LAYOUT DETAIL



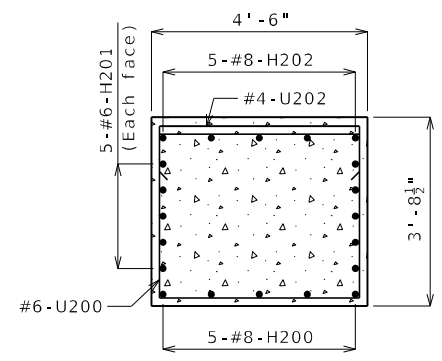
PLAN OF BEAM



SECTION A-A



SECTION B-B



SECTION C-C

Notes:

Work this sheet with Sheet No. 7.

Bar marks for Bent No. 2 shown (200) series, Bent No. 3 similar (300 series).

For steps 2 inches or more, use 2 1/4 x 1/2 inch joint filler up vertical face.

INTERMEDIATE BENTS NO. 2 & 3

Detailed July 2025
Checked Sept.2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 8 of 22

STATE OF MISSOURI

JASON M. KEMNITZ

NUMBER PE-201100851

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN

SIGNED, SEALED AND DATED

ELECTRONICALLY.

DATE PREPARED

11/10/2025

ROUTE

BB

STATE

MO

DISTRICT

BR

SHEET NO.

8

COUNTY

JASPER

JOB NO.

JSR0137

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9601

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION

COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

800 E 101st Terr., Ste. 200

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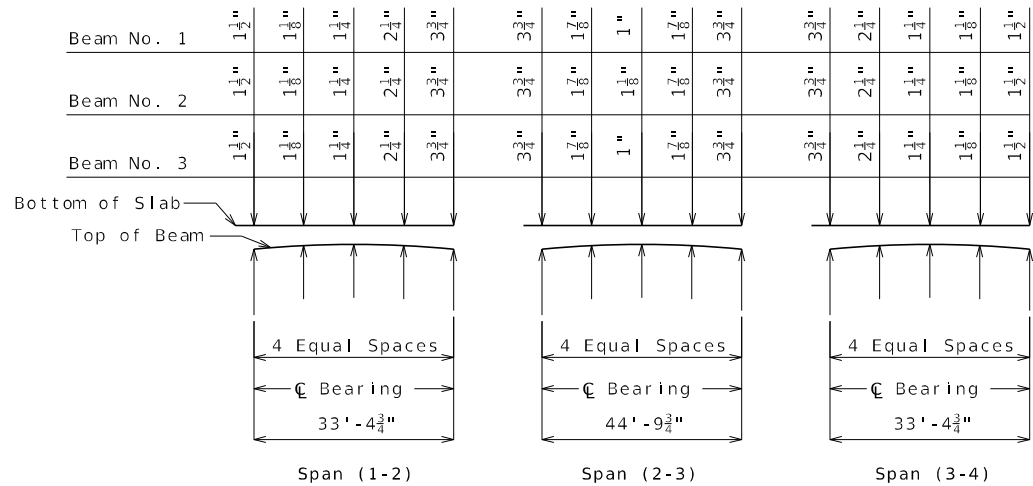
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Authority #2003007599

WILSON

& COMPANY

ENGINEERS & ARCHITECTS



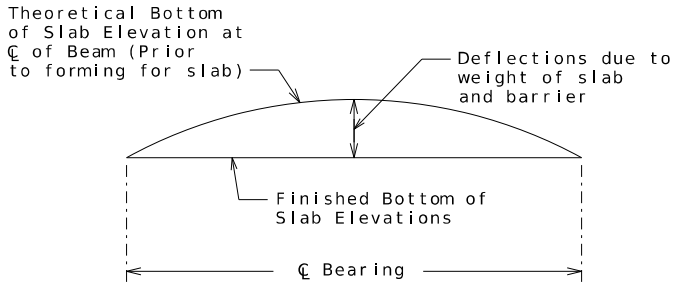
THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

If beam camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

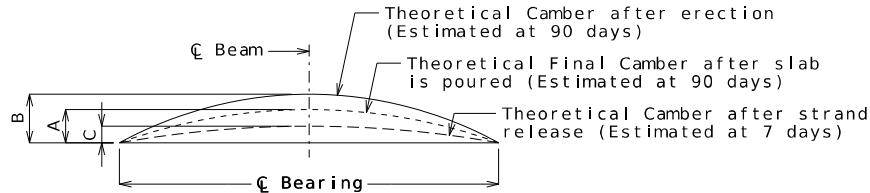
Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete Beam.

Theoretical Bottom of Slab Elevations at Centerline of Beam (Prior to forming for slab) (Estimated at 90 days)					
Beam Number	Span (1-2) (33'-4 3/4" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.
1	985.29	985.31	985.32	985.32	985.30
2	985.49	985.51	985.53	985.52	985.50
3	985.29	985.31	985.33	985.32	985.31
Beam Number	Span (2-3) (44'-9 3/4" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.
1	985.30	985.37	985.40	985.38	985.32
2	985.50	985.58	985.61	985.59	985.52
3	985.31	985.37	985.41	985.38	985.33
Beam Number	Span (3-4) (33'-4 3/4" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.
1	985.32	985.34	985.35	985.35	985.33
2	985.52	985.55	985.56	985.55	985.54
3	985.33	985.35	985.36	985.36	985.34

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM



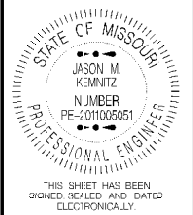
Beam	Span (1-2)			Span (2-3)			Span (3-4)		
	A	B	C	A	B	C	A	B	C
Exterior	1 3/8"	1 5/8"	1"	2 3/4"	3 3/4"	2 3/8"	1 3/8"	1 5/8"	1"
Interior	1 3/8"			2 3/8"			1 3/8"		

BEAM CAMBER DIAGRAM

Conversion Factors for Beam Camber (Estimated at 90 days):

0.25 pt. = 0.7125 x 0.5 pt.

CAMBER DIAGRAM, HAUNCHING DIAGRAM AND SLAB ELEVATIONS



DATE PREPARED 11/10/2025	
ROUTE BB	STATE MO
DISTRICT BR	SHEET NO. 13
COUNTY JASPER	
JOB NO. JSR0137	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9601	

DESCRIPTION	DATE

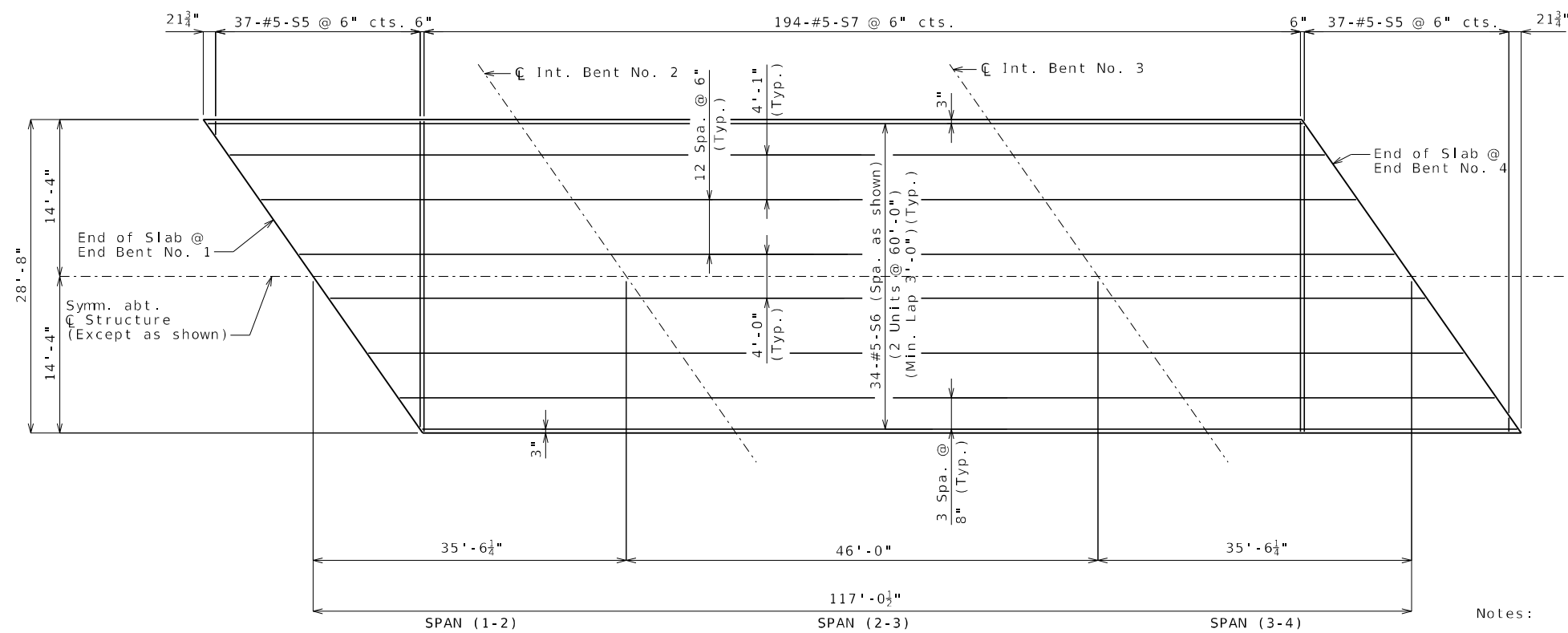
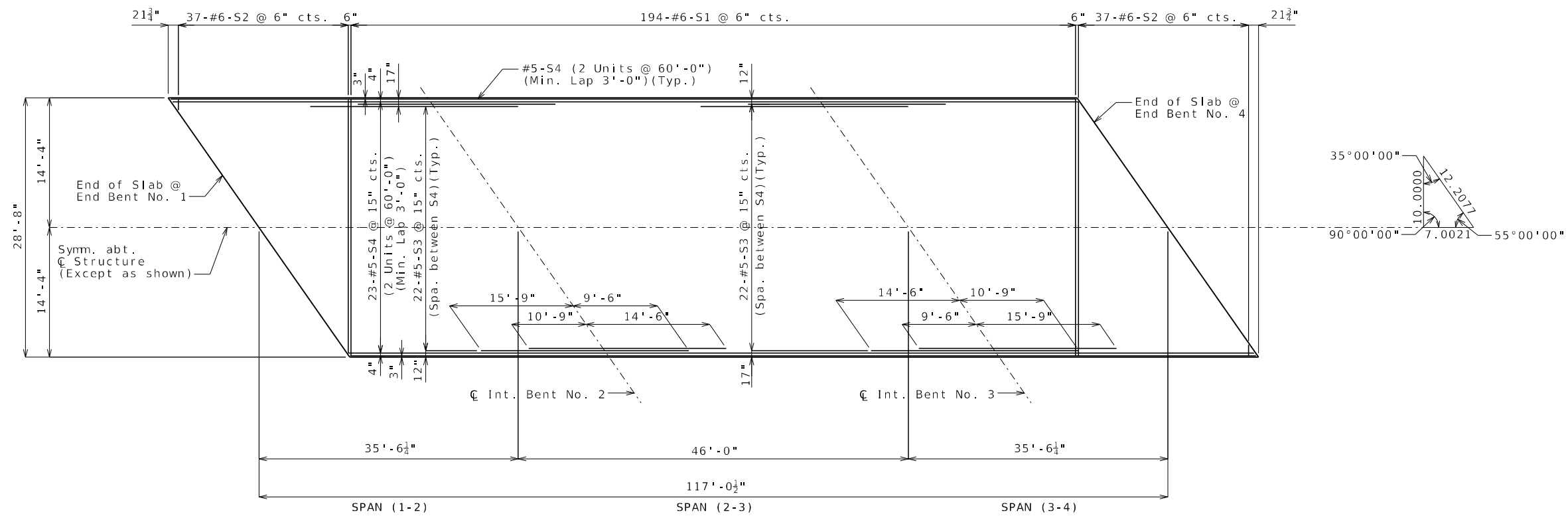
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013
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Authority #2003007599

WILSON & COMPANY
ENGINEERS & ARCHITECTS



Notes:

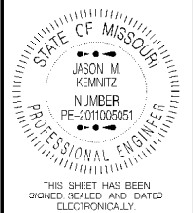
Longitudinal slab dimensions are measured horizontally.

For details and locations of Slab Drains, see Sheet No. 12.

For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 13.

For Section Thru Slab and Slab Pouring Sequence, see Sheet No. 15.

For details and reinforcement of Type H Barriers
not shown, see Sheets No. 16 & 17.



DATE PREPARED	11/10/2025
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ROUTE	STATE
55	MO

BB	MO
0-99999999	0-99999999

DISTRICT	SHEET NO.
RR	14

BR	1-4
COUNTY	

JASPER

JOB NO.

JSR0137

CONTRACT ID.

PROJECT NO. _____

BRIDGE NO.
A9601

[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

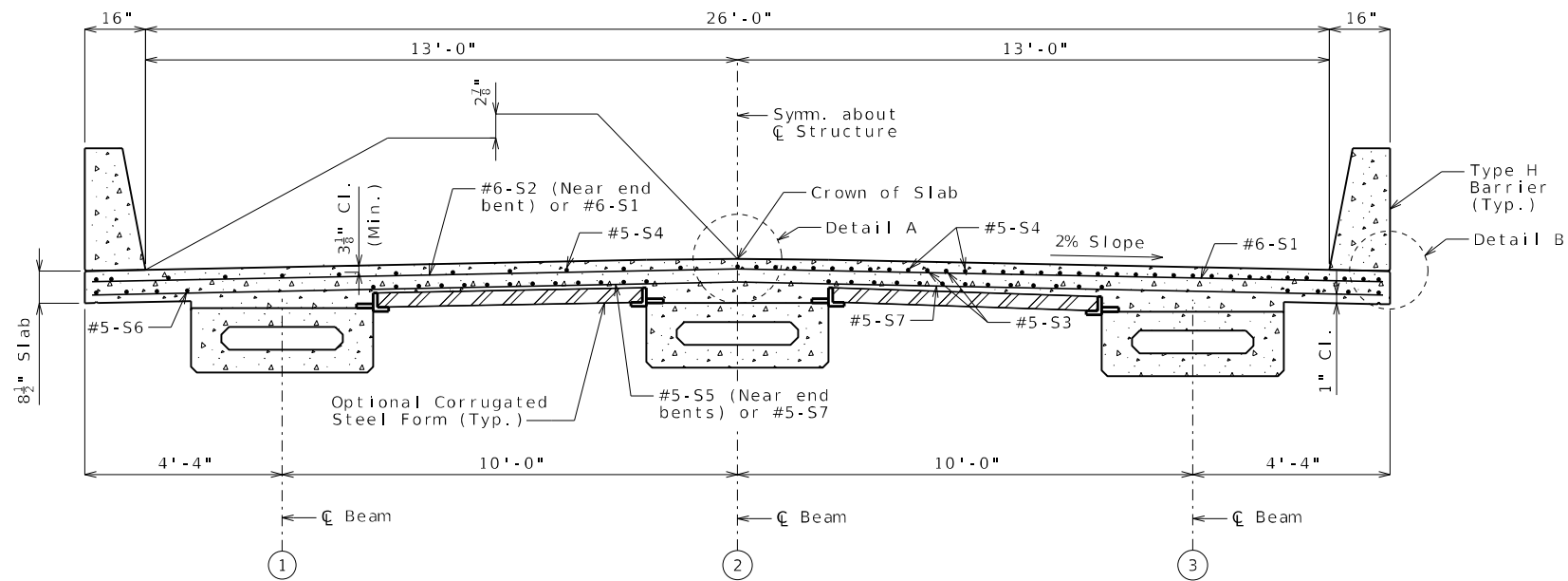
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



300 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013

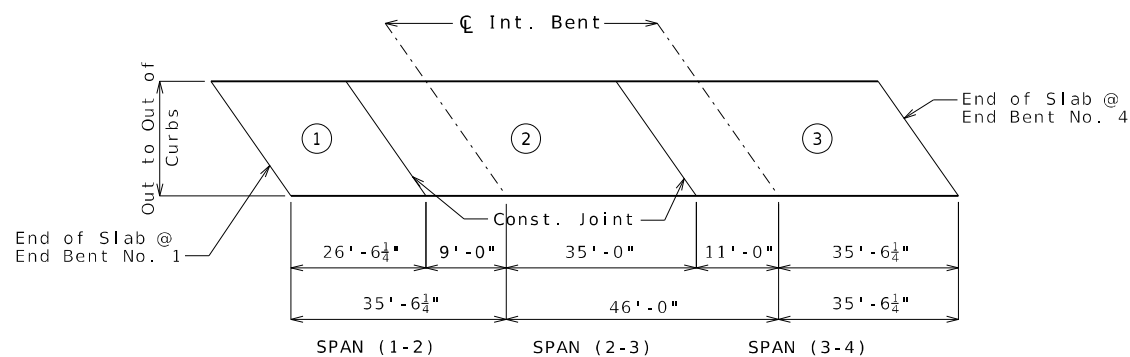
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HALF SECTION NEAR MIDSPAN HALF SECTION NEAR INTERMEDIATE BENT

SECTION THRU SLAB

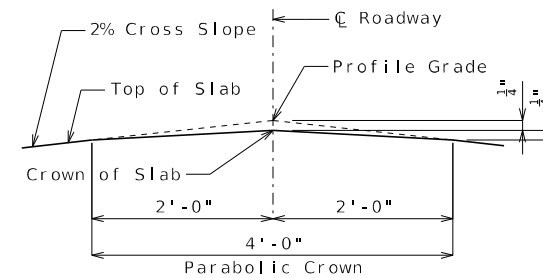


	Sequence of Pours			Min. Rate of Pour Cu. Yds./Hr.
	Direction			With Retarder
Basic Sequence	1	2	3	25
	End to 2	1 to 3	2 to End	
Alternate pours to the basic sequence are subject to the approval of the engineer in accordance with Sec 703.				
Alternate A Pours	1 + 2		3	25
	End to 3		2 to End	
Alternate B Pours	1 + 2 + 3			25
	End to End			

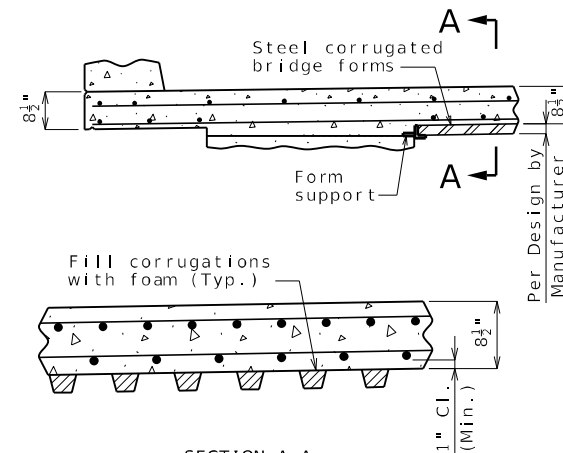
The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

SLAB POURING SEQUENCE

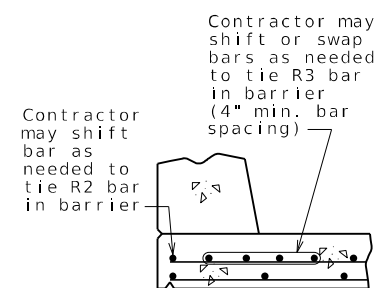


DETAIL A

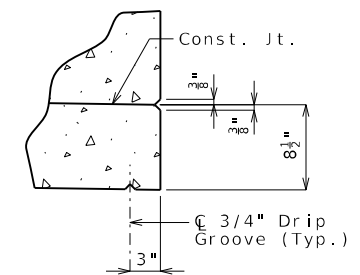


SECTION A-A

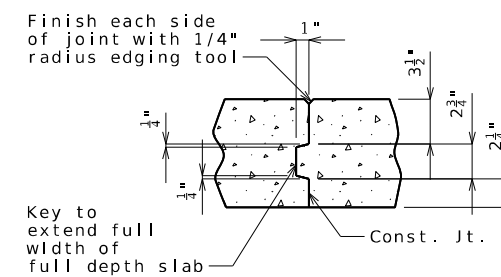
OPTIONAL STAY-IN-PLACE FORM DETAILS



OPTIONAL SHIFTING TOP BARS AT BARRIER



DETAIL B



FULL DEPTH SLAB
SLAB CONSTRUCTION JOINT

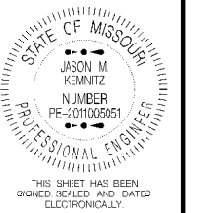
SLAB DETAILS

Detailed July 2025
Checked Sept. 2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 15 of 22

B_A9601_015_JSR0137_SLAB DETAILS.dgn 3:28:55 PM 11/10/2025



DATE PREPARED
11/10/2025
ROUTE BB STATE MO
DISTRICT BR SHEET NO. 15
COUNTY JASPER
JOB NO. JSR0137
CONTRACT ID.

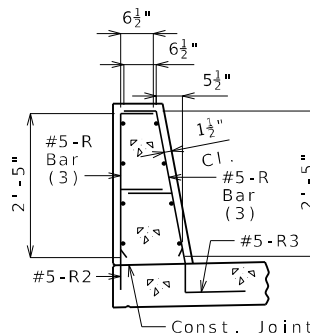
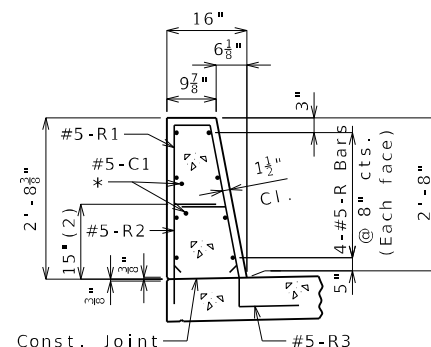
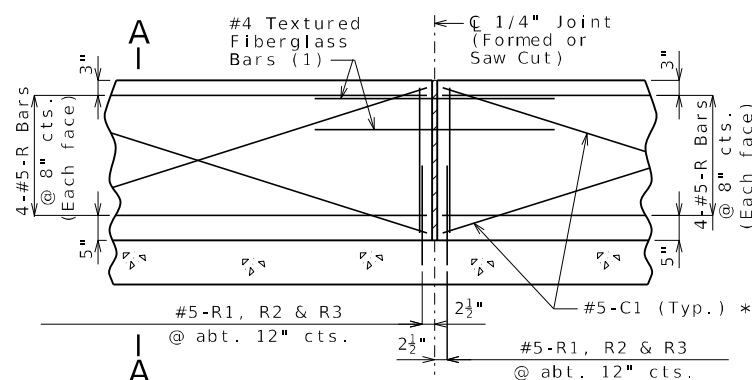
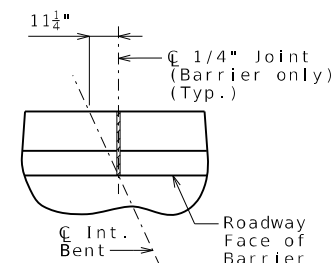
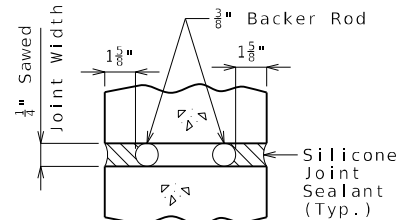
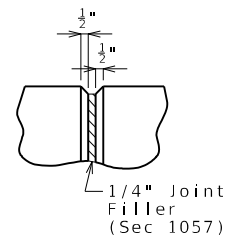
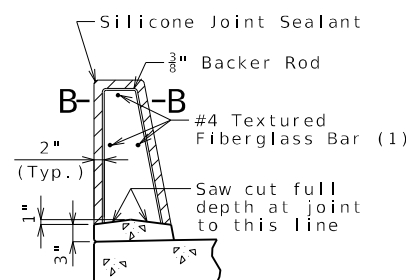
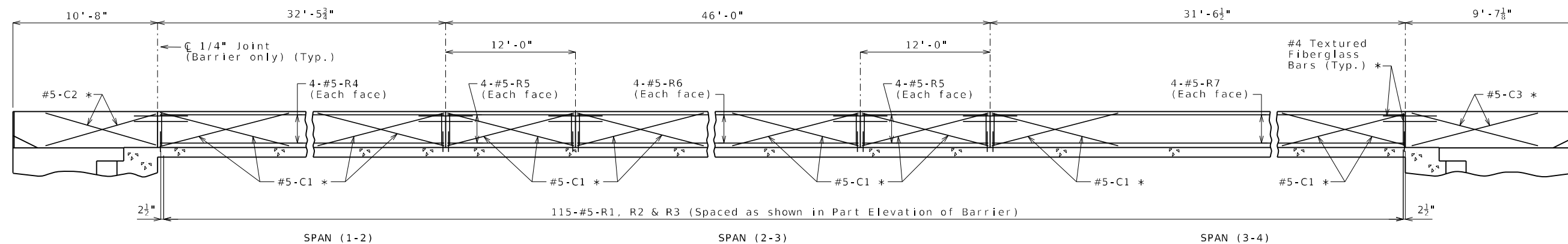
PROJECT NO.
BRIDGE NO. A9601

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)
MoDOT

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
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General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type H Barrier per linear foot.

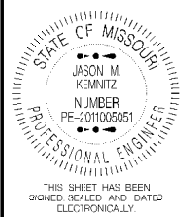
Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type H Barrier.

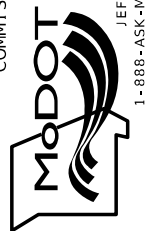
Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.



DATE PREPARED	
11/10/2025	
ROUTE	STATE
BB	MO
DISTRICT	SHEET NO.
BR	16
COUNTY	
JASPER	
JOB NO.	
JSR0137	
CONTRACT ID.	

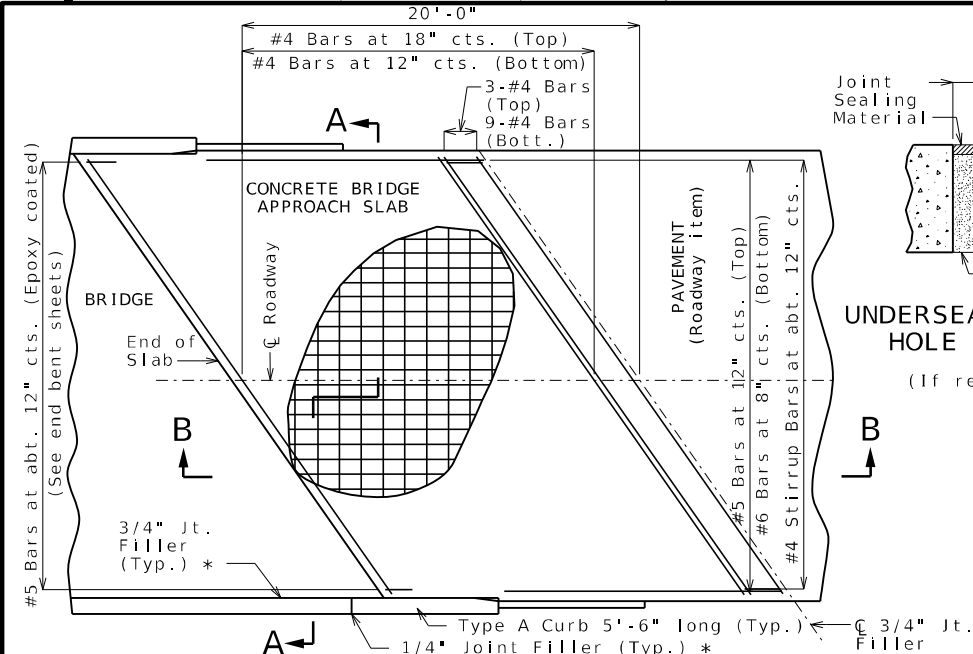
PROJECT NO.
BRIDGE NO. A9601

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COMMISSION

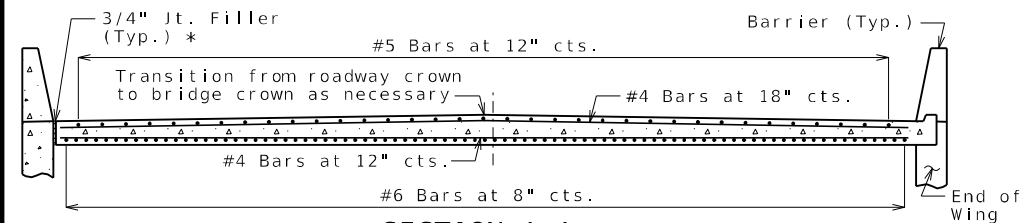
000 E 101st Terr., Ste. 200
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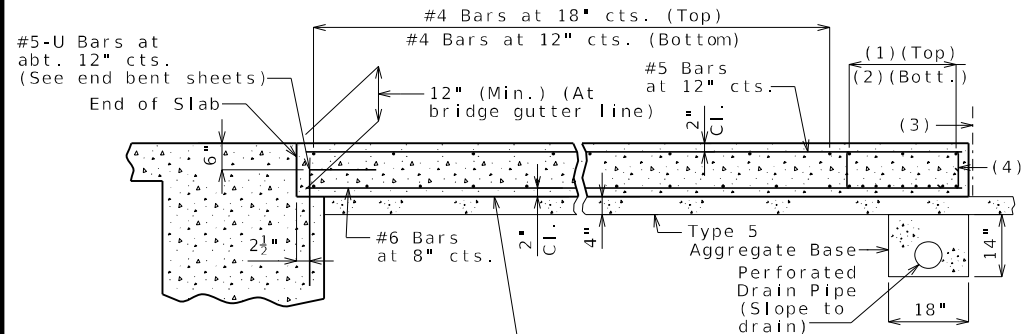


PART PLAN OF SKEWED STRUCTURE
(Square structure similar)

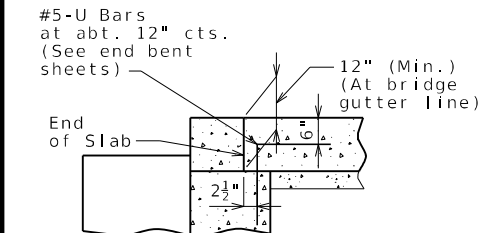


SECTION A-A

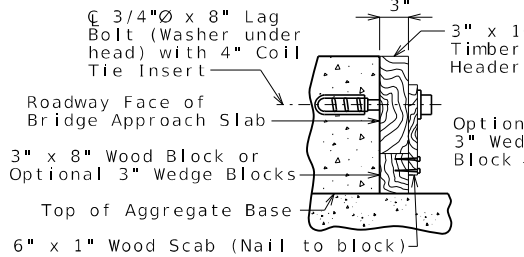
With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION B-B
(Integral end bent)

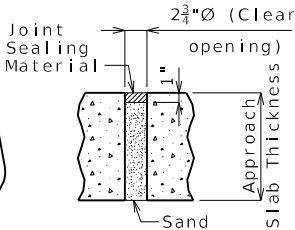


PART SECTION B-B
(Non-Integral end bent)

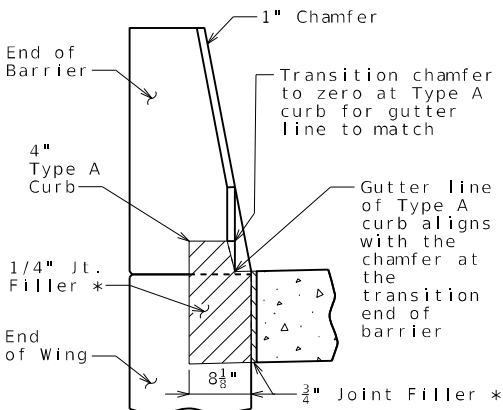


SECTION E-E

DETAILS OF TIMBER HEADER
Remove timber header when concrete pavement is placed.
OPTIONAL CONCRETE SLAB

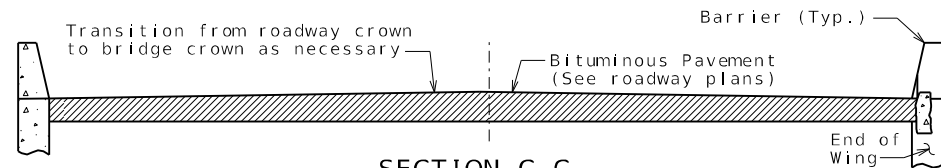


UNDERSEAL ACCESS
HOLE DETAIL
(If required)



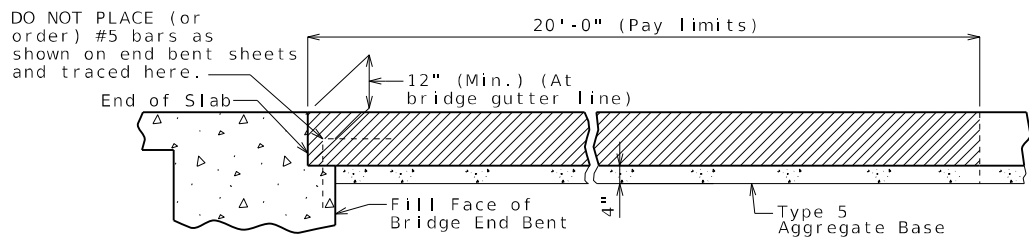
SECTION BETWEEN
CURB AND BARRIER

- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) C 3/4" Jt. Filler
- (4) #4 Stirrup Bars at abt. 12" cts.; 2'-0" x 8" (Min.) out to out; Actual length = 5'-10" (Min.); 90° stirrup hook at bottom; Stirrup height (8") and actual length vary due to crown.



SECTION C-C

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION D-D

OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)

Notes For Concrete Slab Only:

All concrete for the bridge approach slab shall be in accordance with Sec 503 ($f'c = 4,000$ psi).

The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with $f_y = 60,000$ psi.

Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 26 inches for #4 bars, or by mechanical bar splice.

Mechanical bar splices shall be in accordance with Sec 710.

All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

See Missouri Standard Plan 609.00 for details of Type A curb.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

* Seal joint between vertical face of approach slab and wing with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

General Notes:

Contractor shall have the option to construct either slab except as noted.

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

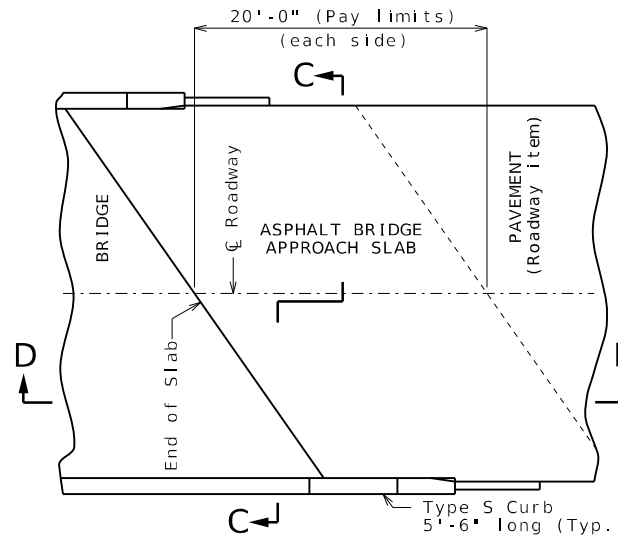
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:

- ☐ Concrete Bridge Approach Slab
☐ Asphalt Bridge Approach Slab

Notes For Asphalt Slab Only:

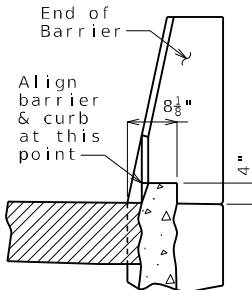
Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

Application of tack is required between lifts per Sec 403.



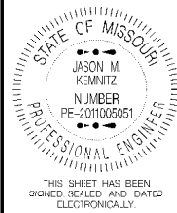
PART PLAN

(Skewed structure shown, square structure similar)



4" TYPE S CURB

See Missouri Standard Plan 609.00 for details of Type S curb.



DATE PREPARED
11/10/2025

ROUTE BB MO
DISTRICT BR SHEET NO. 18

COUNTY JASPER
JOB NO. JSR0137
CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9601

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

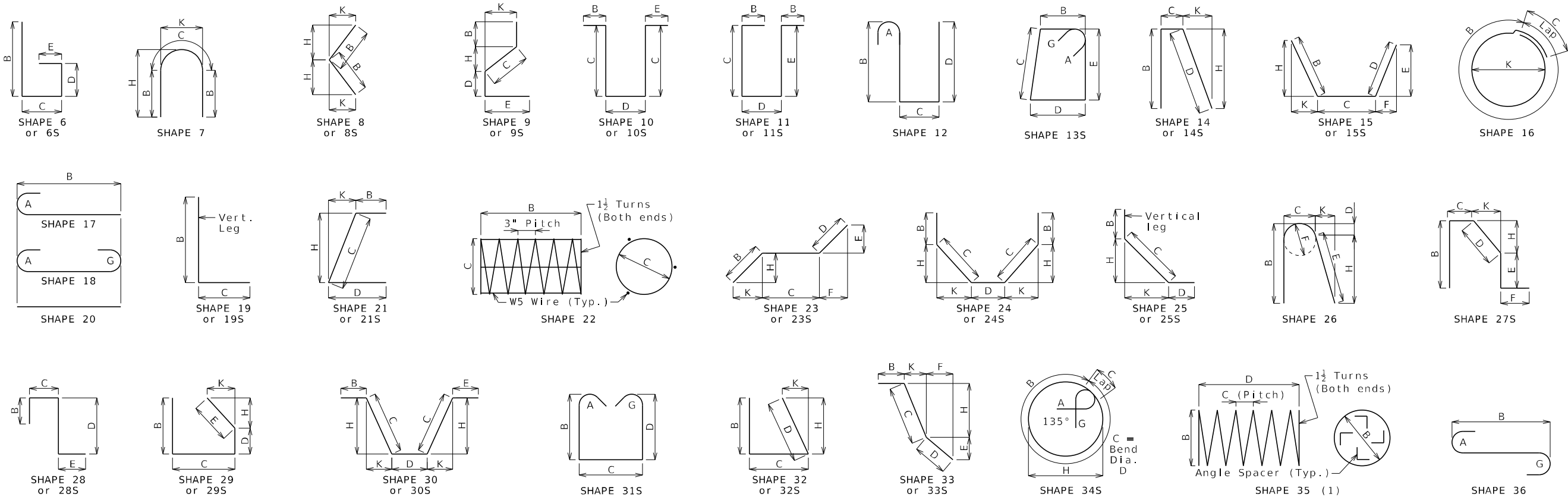
MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

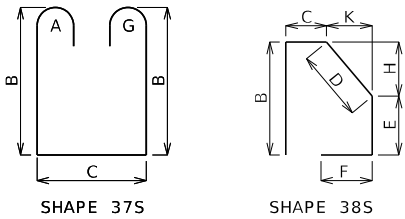
Wilson & Company

ENGINEERS & ARCHITECTS

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013
Missouri Cert. of Authority #2003007599



Finished Bend Dimensions D and Hook Dimensions						
Standard Pin Bend Shapes						
Size	Case	D	A or G		J	
			90°	180°	180°	
#4	1	3"	8"	6"	4"	
#5	1	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 3/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G			J
			90°	135°	180°	
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 3/4"	5 3/4"	5 3/4"	5 3/4"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/4"	7"	3 3/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 3/8"
Applicable for all grades of steel.						
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.						



BENDING DIAGRAMS

All dimensions are out to out. (1) Shall be a deformed or plain spiral bar or wire.

Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.

Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)								
By Size	Size	Substructure		Superstructure			Entire Bridge	
		Plain	Epoxy	Slab		Slip Form	Plain	Epoxy
				Plain	Epoxy			
	W5	0	0	0	0	0	0	0
	4	678	0	0	973	0	557	973
	5	0	0	0	17,754	6,264	0	24,479
	6	3,631	0	0	14,280	0	3,631	14,280
	7	0	0	0	0	0	0	0
	8	1,825	0	0	805	0	1,825	805
	9	0	0	0	0	0	0	0
	10	5,874	0	0	0	0	5,874	0
	11	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0
By Type		12,008	0	0	33,812	6,264	12,008	40,537

All superstructure reinforcing steel shall be epoxy coated unless otherwise specified.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

STATE OF MISSOURI

JASON M. KIMMEL

PROFESSIONAL ENGINEER

NUMBER PE-2011006051

THIS SHEET HAS BEEN
JOINED, REPELLED AND DATED
ELECTRONICALLY.

DATE PREPARED
11/10/2025

ROUTE BB STATE MO

DISTRICT BR SHEET NO. 19

COUNTY JASPER

JOB NO. JSR0137

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9601

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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Phone (816) 701-3100
Fax (816) 942-3013
Missouri Cert. of
Authority #2003007599

WILSON & COMPANY

ENGINEERS & ARCHITECTS

Bill of Reinforcing Steel															
No. Req.	Size/ Mark	Location	Codes			Dimensions							Nom. Length	Actual Length	Weight
			C	SH	V	B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	ft in.	ft in.	lb
		Substructure													
		Int Bent 2													
14	6 D200	BEAM		20		2 6.000							2 6	2 6	53
5	8 H200	BEAM		20		33 3.000							33 3	33 3	444
10	6 H201	BEAM		20		33 3.000							33 3	33 3	499
5	8 H202	BEAM		18		33 3.000							35 1	35 1	468
14	6 H203	BEAM		10S			12.00	4 3.000					6 3	5 11	124
44	4 P200	DRILLED SHAFT		16S		9 5.125	2 0.000					3 0.000	11 5	11 4	333
40	6 U200	BEAM		13S		4 3.000	3 3.000	4 3.000	3 3.000				16 4	15 10	951
12	6 U201	BEAM		10S			3 3.000	4 3.000					10 9	10 5	188
7	4 U202	BEAM		10S			12.00	4 3.000					6 3	6 1	28
30	10 V200	DRILLED SHAFT		17		22 9.000							24 3	24 3	3130
		Int Bent 3													
14	6 D300	BEAM		20		2 6.000							2 6	2 6	53
5	8 H300	BEAM		20		33 3.000							33 3	33 3	444
10	6 H301	BEAM		20		33 3.000							33 3	33 3	499
5	8 H302	BEAM		18		33 3.000							35 1	35 1	468
14	6 H303	BEAM		10S			12.00	4 3.000					6 3	5 11	124
38	4 P300	DRILLED SHAFT		16S		9 5.125	2 0.000					3 0.000	11 5	11 4	288
40	6 U300	BEAM		13S		4 3.000	3 3.000	4 3.000	3 3.000				16 4	15 10	951
12	6 U301	BEAM		10S			3 3.000	4 3.000					10 9	10 5	188
7	4 U302	BEAM		10S			12.00	4 3.000					6 3	6 1	28
30	10 V300	DRILLED SHAFT		17		19 9.000							21 3	21 3	2743
		Superstructure													
		End Bent 1													
6	6 F100	WING BRACE	E	15S		20.00	7 5.000	20.00	9.250	17.75	9.250	17.75	10 9	10 9	97
2	6 F101	DIAPHRAGM	E	6		3 4.500	5 9.000						9 2	8 10	27
6	6 F102	WING BRACE	E	15S		21.125	3 11.75	20.00	17.75	9.25	18.75	9.625	7 5	7 3	65
2	6 F103	DIAPHRAGM	E	6		3 4.500	5 9.000						9 2	8 10	27
18	6 H100	BM & DIAPH	E	20		34 9.000							34 9	34 9	940
4	6 H101	DIAPHRAGM	E	20		4 8.000							4 8	4 8	28
8	8 H102	WING	E	20		9 4.000							9 4	9 4	199
4	6 H103	DIAPHRAGM	E	20		20.00							1 8	1 8	10
3	5 H104	DIAPHRAGM	E	23		15.00	4 0.000	15.00	5.125	14.125	5.125	14.125	6 6	6 6	20
14	6 H105	STRAND TIE	E	20		6 0.500							6 1	6 1	128
8	8 H106	WING	E	20		9 5.750							9 6	9 6	203
14	6 H107	STRAND TIE	E	20		8 0.500							8 1	8 1	170
12	4 U100	BEAM	E	31S		3 7.250	3 3.000	3 7.250					11 3	11 0	88
30	4 U101	BEAM	E	13S		3 3.000	2 7.000	3 3.000	2 7.000				12 5	12 2	244
42	5 U102	DIAPHRAGM	E	19S		21.00	4 9.000						6 8	6 7	288
22	4 U103	DIAPHRAGM	E	37S		21.00	2 8.500						7 5	7 2	105
22	6 U104	DIAPHRAGM	E	19S		9.250	3 3.000						4 0	3 10	127
10	5 V100	BEAM	E	17		3 7.250							4 2	4 2	43
21	6 V101	DIAPHRAGM	E	20		8.250							0 8	0 8	21
16	6 V102	WING	E	20		4 11.25							4 11	4 11	118
12	6 V103	WING	E	20		4 11.50							5 0	5 0	90
		End Bent 4													
6	6 F400	WING BRACE	E	15S		20.00	7 5.000	20.00	9.250	17.75	9.250	17.75	10 9	10 9	97
2	6 F401	DIAPHRAGM	E	6		3 4.500	5 9.000						9 2	8 10	27
6	6 F402	WING BRACE	E	15S		21.125	3 11.75	20.00	17.75	9.250	18.75	9.625	7 5	7 3	65
2	6 F403	DIAPHRAGM	E	6		3 4.500	5 9.000						9 2	8 10	27
18	6 H400	BM & DIAPH	E	20		34 9.000							34 9	34 9	940
4	6 H401	DIAPHRAGM	E	20		4 8.000							4 8	4 8	28
8	8 H402	WING	E	20		9 4.000							9 4	9 4	199
4	6 H403	DIAPHRAGM	E	20		20.00							1 8	1 8	10
3	5 H404	WING	E	23		15.00	4 0.000	15.00	5.125	14.125	5.125	14.125	6 6	6 6	20

Nominal lengths are based on out to out dimensions shown in bending diagrams and are listed to the nearest inch for fabricator's use. Actual lengths are measured along centerline bar to the nearest inch. Weights are based on actual lengths.

All bars shall be Grade 60.

For bending diagrams and steel reinforcing totals, see Sheet No. 19.

Detailed July 2025
Checked Sept.2025

Note: This drawing is not to scale. Follow dimensions.

BILL OF REINFORCING STEEL

Sheet No. 20 of 22

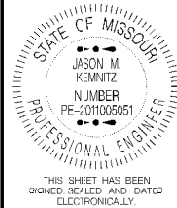
Bill of Reinforcing Steel															
No. Req.	Size/ Mark	Location	Codes			Dimensions						Nom.	Actual	Weight	
			C	SH	V	B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Length ft in.	Length ft in.	lb
14	6 H405	STRAND TIE	E	20		6 0.500							6 1	6 1	128
8	8 H406	WING	E	20		9 5.750							9 6	9 6	203
14	6 H407	STRAND TIE	E	20		8 0.500							8 1	8 1	170
12	4 U400	BEAM	E	31S		3 7.250	3 3.000	3 7.250					11 3	11 0	88
30	4 U401	BEAM	E	13S		3 3.000	2 7.000	3 3.000	2 7.000				12 5	12 2	244
42	5 U402	DIAPHRAGM	E	19S		23.00	4 9.000						6 8	6 7	288
22	4 U403	DIAPHRAGM	E	37S		23.00	2 8.500						7 5	7 2	105
22	6 U404	DIAPHRAGM	E	19S		9.250	3 3.000						4 0	3 10	127
10	5 V400	BEAM	E	17		3 7.250							4 2	4 2	43
21	6 V401	DIAPHRAGM	E	20		8.250							0 8	0 8	21
16	6 V402	WING	E	20		4 11.50							5 0	5 0	120
12	6 V403	WING	E	20		4 11.50							5 0	5 0	90
		Int Diaphragms													
16	6 H50	DIAPHRAGM	E	20		7 0.000							7 0	7 0	168
8	4 H51	DIAPHRAGM	E	20		7 0.000							7 0	7 0	37
12	5 H52	DIAPHRAGM	E	21S			5 4.750	9.000			5 2.500	16.75	6 2	6 0	75
12	5 H53	DIAPHRAGM	E	21S			9.000	5 4.750			5 2.500	16.75	6 2	5 11	74
4	5 H54	STRAND TIE	E	20		6 8.000							6 8	6 8	28
8	5 H55	STRAND TIE	E	20		5 5.000							5 5	5 5	45
40	6 U50	DIAPHRAGM	E	28S			22.00	23.00	3 11.00				7 8	7 4	441
16	4 U51	DIAPHRAGM	E	28S			15.00	23.00	2 9.000				5 11	5 9	61
16	5 V50	DIAPHRAGM	E	20		2 2.000							2 2	2 2	36
		Slab													
194	6 S1	SLAB	E	20		28 5.000							28 5	28 5	8280
74	6 S2	SLAB	E	20	2	28 0.000							28 0	28 0	
		Incr. = 8.500"				2 6.000							2 6	2 6	1695
88	5 S3	SLAB	E	20		25 3.000							25 3	25 3	2318
50	5 S4	SLAB	E	20		60 0.000							60 0	60 0	3129
74	5 S5	SLAB	E	20	2	28 0.000							28 0	28 0	
		Incr. = 8.500"				2 6.000							2 6	2 6	1177
68	5 S6	SLAB	E	20		60 0.000							60 0	60 0	4255
194	5 S7	SLAB	E	20		28 5.00							28 5	28 5	5750
		Barrier													
		Type H													
230	5 R1	BARRIER	E	14S		2 5.000	6.500	2 5.500			2 5.000	5.500	5 5	5 3	1259
230	5 R2	BARRIER	E	19S		20.50	9.500						2 6	2 5	580
230	5 R3	BARRIER	E	27S			9.500	15.25	5.000	12.00	15.00	3.000	3 6	3 4	800
16	5 R4	BARRIER	E	20		32 2.000							32 2	32 2	537
32	5 R5	BARRIER	E	20		11 9.000							11 9	11 9	392
16	5 R6	BARRIER	E	20		21 9.000							21 9	21 9	363
16	5 R7	BARRIER	E	20		31 3.000							31 3	31 3	522
20	5 K1	BARRIER	E	27S		3 5.000	9.250	5.375	2 11.75		5.250	1.000	7 7	7 5	155
46	5 K2	BARRIER	E	27S		3 5.000	9.250	14.50	2 2.750		14.25	2.750	7 8	7 5	356
4	5 K3	BARRIER	E	27S		22.50	9.250	14.50	0 7.750	12.00	14.25	2.750	5 6	5 2	22
70	5 K4	BARRIER	E	19S		2 5.000	10.00						3 3	3 2	231
20	5 K5	BARRIER	E	38S				19.25	9.500	8.250	18.75	4.250	3 1	3 0	63
50	5 K6	BARRIER	E	21S			2 4.875	10.00			2 4.250	6.000	3 3	3 1	161
28	5 K7	BARRIER	E	20		10 5.000							10 5	10 5	304
28	5 K8	BARRIER	E	20		9 4.000							9 4	9 4	273
		Slip-Form													
32	5 C1	SLIP FORM	E	20		12 0.000							12 0	12 0	401
4	5 C2	SLIP FORM	E	20		7 9.000							7 9	7 9	32
4	5 C3	SLIP FORM	E	20		6 9.000							6 9	6 9	28



SUBSURFACE DIAGRAM

PROJECT NAME Bridge Replacement
PROJECT LOCATION 1.1 Miles South of Route N
CLIENT _____
PROJECT NUMBER JSR0137-A9601

- | | | | | | |
|--|--------------------|--|----------------------------|--|--------------------------|
| | Asphalt | | USCS Poorly-graded Gravel | | USCS Low Plasticity Clay |
| | USCS Clayey Gravel | | Highly Weathered Limestone | | Limestone |
| | Concrete | | Water | | Shale |



DATE PREPARED
11/10/2025
ROUTE BB STATE MO
DISTRICT BR SHEET NO. 22

COUNTY
JASPER
JOB NO.
JSR0137
CONTRACT ID.

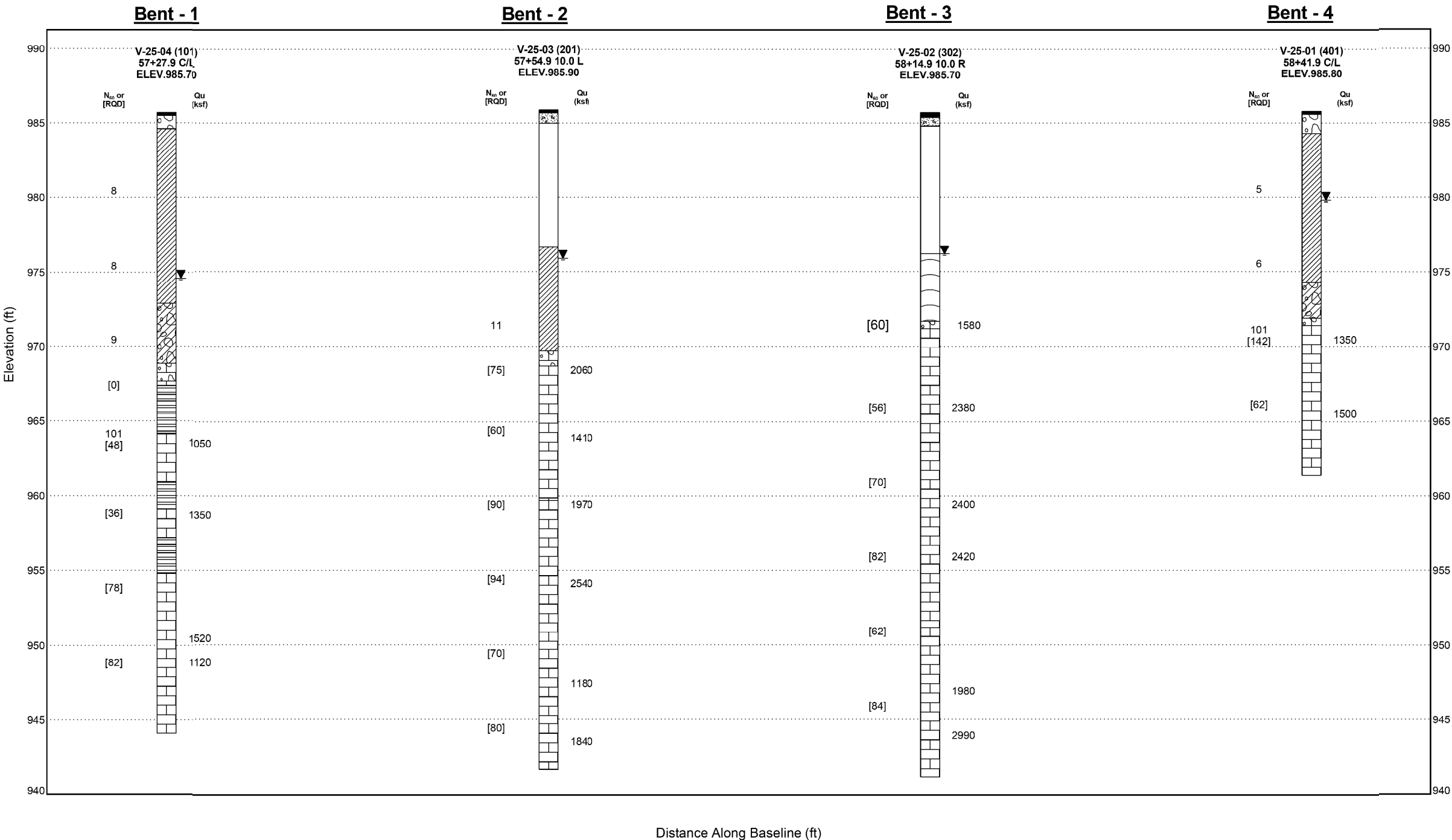
PROJECT NO.
BRIDGE NO.
A9601

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013
Missouri Cert. of
Authority #2003007599

WILSON & COMPANY
ENGINEERS & ARCHITECTS



BORING DATA

NOTES:

For locations of borings, see Sheet No. 1.

Detailed July 2025
Checked Sept. 2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 22 of 22

DESIGN DESIGNATION

A.A.D.T. - 2026 = 276
A.A.D.T. - 2046 = 305
D.H.V. = 9.69%
T = 19.21%
V = 55 M.P.H.
D (E/W) = 47.8%/52.2%
FUNCTIONAL CLASS = MAJOR COLLECTOR

NO NEW RIGHT OF WAY REQUIRED

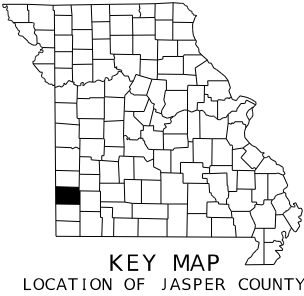
CONVENTIONAL SYMBOLS

(USED IN PLANS)

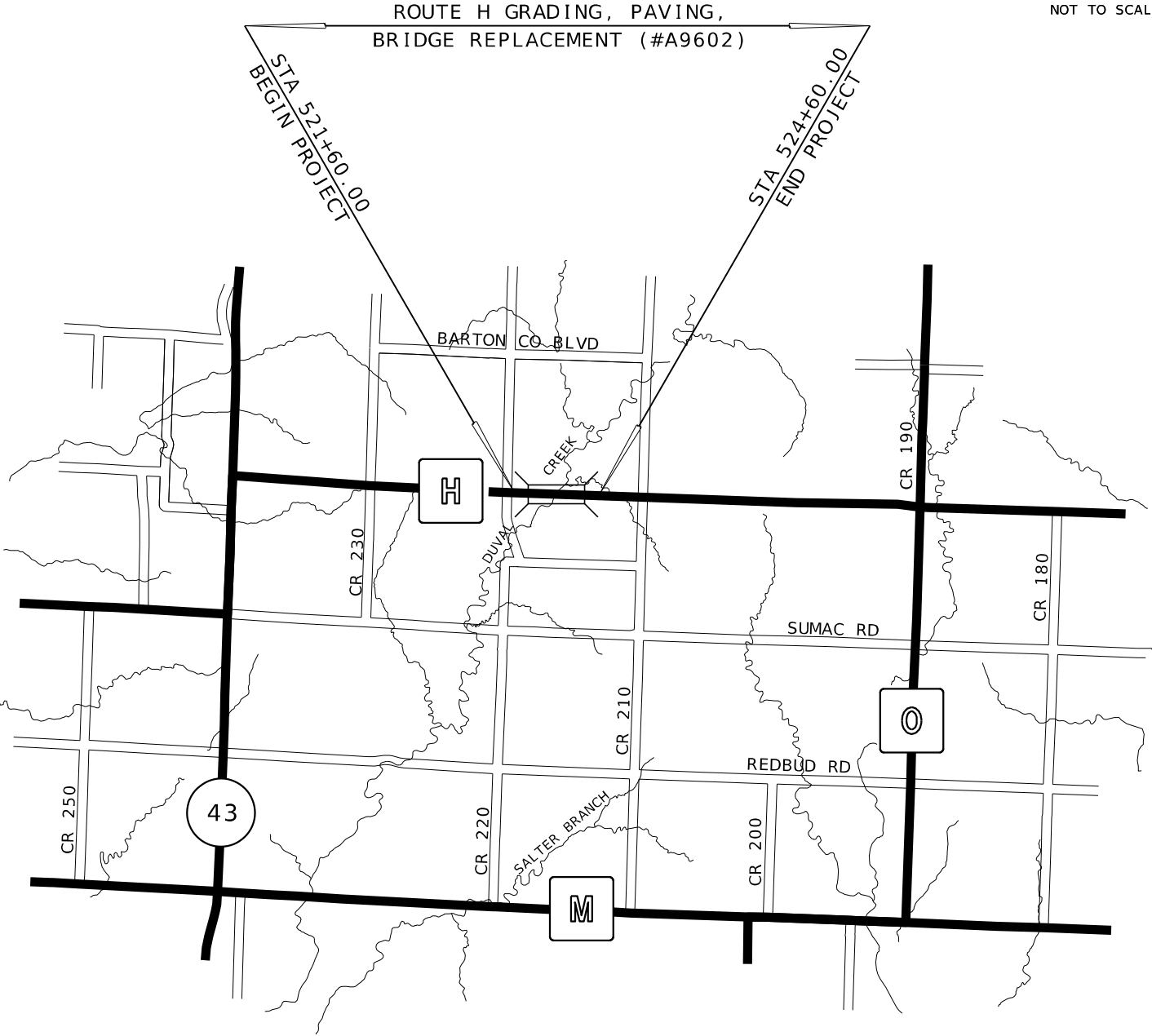
	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-OTV-
UNDERGROUND CABLE TV	-UTV-	-UTV-
OVERHEAD TELEPHONE	-OT-	-OT-
UNDERGROUND TELEPHONE	-UT-	-UT-
OVERHEAD POWER	-OE-	-OE-
UNDERGROUND POWER	-UE-	-UE-
SANITARY SEWER	-S-	-S-
STORM SEWER	-SS-	-SS-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
DROP INLET		
DITCH BLOCK		
GROUND MOUNTED SIGN		
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL		
FENCE		
CHAIN LINK		
WOVEN WIRE		
GATE POST		
BENCHMARK		

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSON
PLANS FOR PROPOSED
STATE HIGHWAY



JASPER COUNTY
T 30 N. R 32 W - SECTION 15 & 22



NOT TO SCALE

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (1 SHEET)	2
QUANTITIES (QU) (2 SHEETS)	3
PLAN - PROFILE (PP) (1 SHEET)	4
COORDINATE POINT (CP)	5
EROSION CONTROL (EC)	6
SIGNING QUANTITIES (SN)	7
TRAFFIC CONTROL (TC)	8-9
BRIDGE DRAWINGS (B)	
#A9602	1-21
CROSS SECTIONS (XS)	1-5

LENGTH OF PROJECT	
BEGINNING OF PROJECT	STA. 521+60.00
END OF PROJECT	STA. 524+60.00
APPARENT LENGTH	300 FEET
EQUATIONS AND EXCEPTIONS	NONE

TOTAL CORRECTIONS	0 FEET
NET LENGTH OF PROJECT	300 FEET
STATE LENGTH	0.057 MILES
FOR INFORMATION ONLY	
ESTIMATED DISTURBED ACRES	0.55 AC

STATE OF MISSOURI

MATTHEW B. FIELDS

NUMBER

PE-2024005189

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED

10/27/2025

ROUTE

H

DISTRICT

SW

STATE

MO

SHEET NO.

1

COUNTY

JASPER

JOB NO.

JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

800 E 101st Terr., Ste. 200

Kansas City, MO 64131

Phone (816) 701-3100

Fax (816) 942-3013

Missouri Cert. of Authority #2003007599

WILSON & COMPANY

ENGINEERS & ARCHITECTS

STATE OF MISSOURI

MATTHEW B. FIELDS

NUMBER PE-2024005189

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED

10/27/2025

ROUTE

H

STATE

MO

DISTRICT

SW

SHEET NO.

3

COUNTY

JASPER

JOB NO.

JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

800 E 101st Terr., Ste. 200 Kansas City, MO 64131 Phone (816) 701-3100 Fax (816) 942-3013 Missouri Cert. of Authority #2003007599

WILSON & COMPANY

ENGINEERS & ARCHITECTS

REMOVAL OF IMPROVEMENTS						
BEGIN STATION	END STATION	OFFSET	DESCRIPTION	QUANTITY	UNITS	REMARKS
A9602 - ROUTE H						
513+25		RT	SIGN	1	EA	BRIDGE SIGN
521+60		RT/LT	SAW CUT	19	LF	FOR INFO ONLY
524+60		RT/LT	SAW CUT	18	LF	FOR INFO ONLY
522+42		RT/LT	SIGN	2	EA	OBJECT MARKER
522+42	523+64	RT/LT	STEEL PLATE	1	EA	MODOT RETAINED
523+62		RT/LT	SIGN	2	EA	OBJECT MARKER
533+00		LT	SIGN	1	EA	BRIDGE SIGN
TOTAL				1	LS	
USE				1	LS	

EARTHWORK			
BEGIN STATION	END STATION	OFFSET	UNCLASS EXCAVATION (CY)
A9602 - ROUTE H			
521+60	522+40	LT/RT	195
523+64	524+60	LT/RT	234
TOTAL			429
USE			429

SEEDING & MULCHING - COOL SEASON GRASSES	
TOTAL ACRES	
0.1	
FOR INFORMATION ONLY	
TEMPORARY SEEDING	
TOTAL ACRES	
0.1	
FOR INFORMATION ONLY	
MULCHING	
TOTAL ACRES	
0.2	
FOR INFORMATION ONLY	
USE 1 LUMP SUM - SEE JSP	

ADDITIONAL MOBILIZATION FOR SEEDING AND MULCHING	
EACH	
4	

PAVEMENT				
BEGIN STATION	END STATION	OFFSET	TYPE 1 AGGREGATE BASE (6") (SY)	OPTIONAL PAVEMENT (SY)
A9602 - ROUTE H				
521+60	522+21.57	CL	164.76	164.76
522+21.57	522+41.57	CL	57.50	
523+63.43	523+83.43	CL	57.50	
523+83.43	524+60	CL	202.56	202.56
TOTAL			482.32	367.32
USE			483	367.3

TEMPORARY EROSION CONTROL					
BEGIN STATION	END STATION	OFFSET	SILT FENCE (LF)	TYPE C BERM (LF)	SEDIMENT REMOVAL (CY)
A9602 - ROUTE H					
521+50	522+20	RT	70		0.7
521+60	522+13	LT/RT		195	2.0
523+75	524+60	RT/LT		207	2.1
523+75	524+75	RT	100		1.0
TOTAL			170	402	5.8
USE			170	402	6

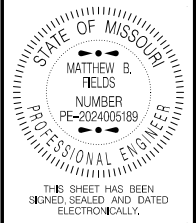
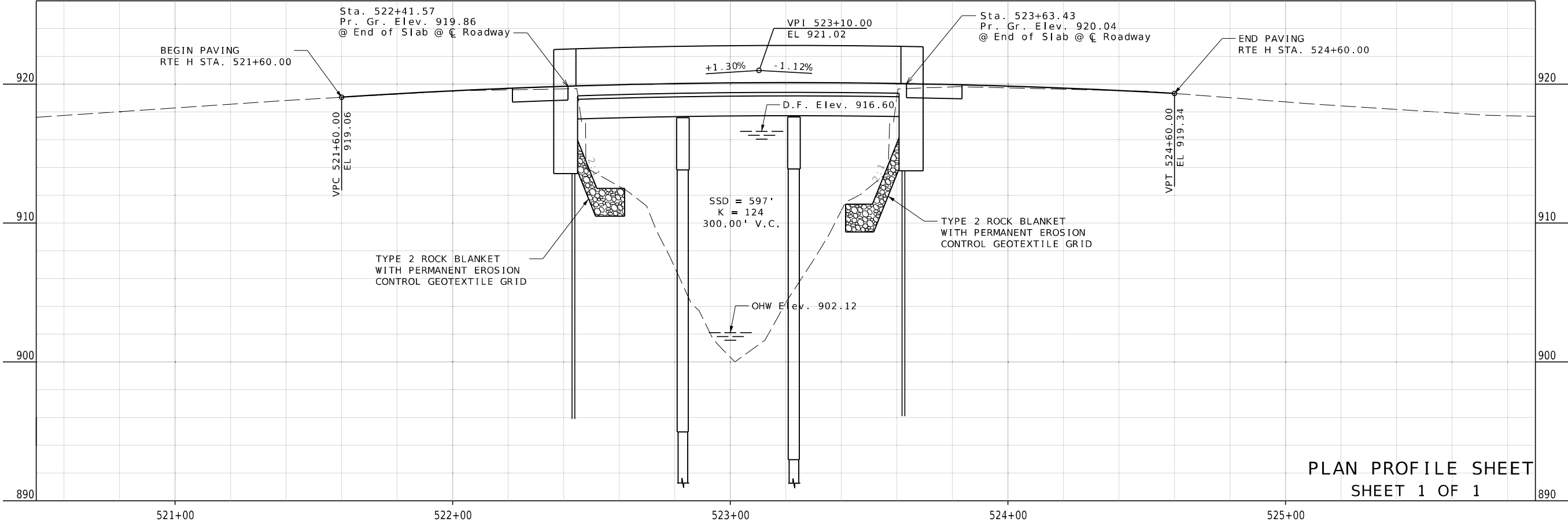
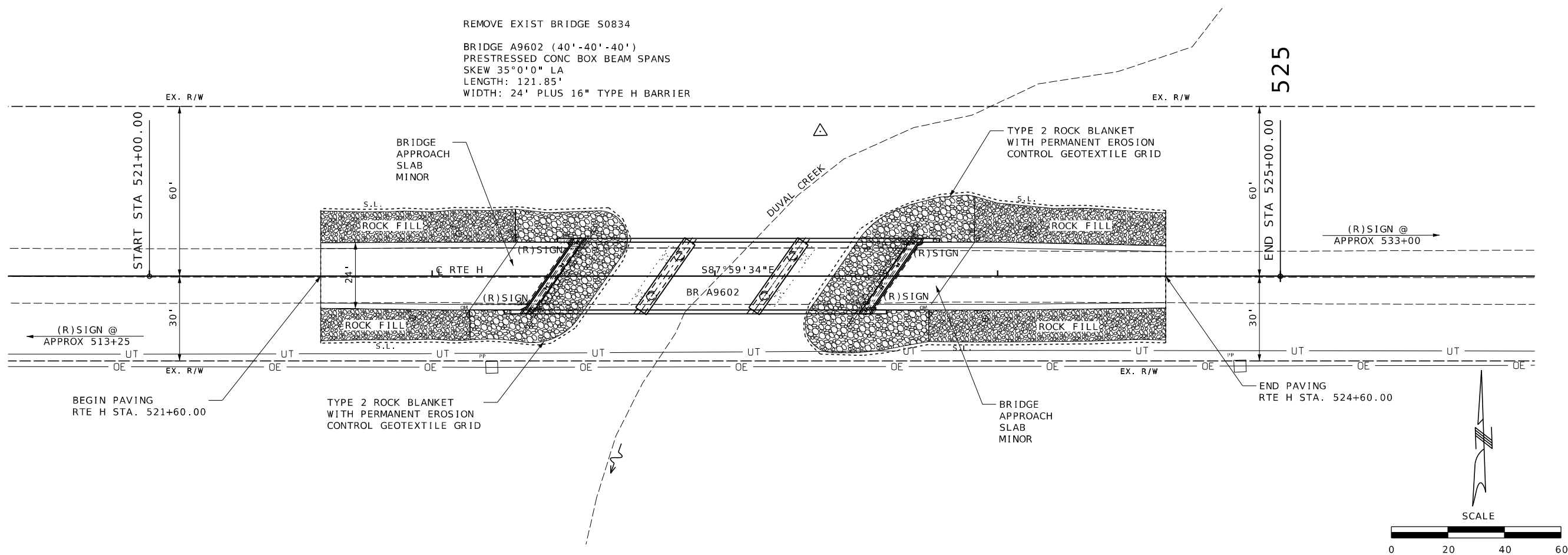
PERMANENT EROSION CONTROL							
BEGIN STATION	END STATION	OFFSET	FURNISHING TYPE 2 ROCK BLANKET (CY)	PLACING TYPE 2 ROCK BLANKET (CY)	FURNISHING ROCK FILL (CY)	PLACING ROCK FILL (CY)	PERMANENT EROSION CONTROL GEOTEXTILE (SY)
521+60	522+13.2	RT			70.9	70.9	71
522+13.2	522+29.4	RT/LT	98.5	98.5			132
521+60	522+29.4	LT			94.7	94.7	95
523+75.7	524+60	RT			117.0	117.0	117
523+75.7	523+91.8	RT/LT	126.5	126.5			170
523+91.8	524+60	LT			107.5	107.5	108
TOTAL			225.0	225.0	390.1	390.1	693
USE			225	225	390	390	693

CLASS 1 PAVEMENT MARKING PAINT TYPE P BEADS					
BEGIN STATION	END STATION	OFFSET	4" YELLOW (LF)	4" WHITE (LF)	REMARKS
A9602 - ROUTE H					
521+10	525+10	CL	100		INTERMITTENT CENTERLINE
521+10	525+10	CL	400		SOLID CENTERLINE
521+10	525+10	LT/RT		800	EDGE LINES
TOTAL			500	800	
USE			500	800	

MOBILIZATION	
1 LUMP SUM	
CONTRACTOR FURNISHED SURVEYING & STAKING	
1 LUMP SUM	

SUMMARY OF QUANTITIES
SHEET 1 OF 2

003_QU_JSRO142_RTEH_11_001.dgn 5:02:16 PM 10/27/2025



DATE PREPARED 10/27/2025	
ROUTE H	STATE MO
DISTRICT SW	SHEET NO. 4
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013
Missouri Cert. of
Authority #2003007599

WILSON & COMPANY
ENGINEERS & ARCHITECTS

1 METER = 3.280833333 US SURVEY FEET (USFT)

ALIGNMENTS									
------------	--	--	--	--	--	--	--	--	--

52160		CL RTE H		428,422.362	2,805,779.401	919.07	BEGIN PROJECT AND VPC	
52310		CL RTE H		428,417.108	2,805,929.309	921.02	VPI	
52460		CL RTE H		428,411.855	2,806,079.217	919.34	END PROJECT AND VPT	



DATE						
------	--	--	--	--	--	--



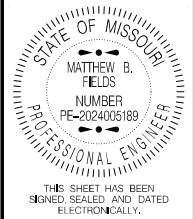
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

JEFFERSON
1-888-ASK-MODOT

WILSON
& COMPANY
ENGINEERS & ARCHITECTS

005_CP_JSR0142_RTEH_11.dgn 5:03:02 PM 10/27/2025

SW - 4" SOLID WHITE LINE
SY - 4" SOLID YELLOW LINE
IY - 4" INTERMITTENT YELLOW LINE (10' MARK, 30' SKIP)



DATE PREPARED
10/27/2025

ROUTE H	STATE MO
DISTRICT SW	SHEET NO. 6

COUNTY
JASPER

JOB NO.
JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

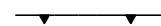
00 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013

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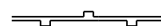
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ROCK DITCH CHECK

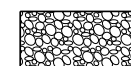


SILT FENCE



TYPE C BERM

ROCK FILL

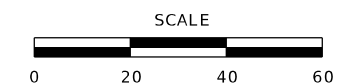


TYPE 2 ROCK BLANKET

NOTE:
EXACT LOCATION OF DITCH CHECKS
AND SILT FENCE TO BE DETERMINED
IN THE FIELD

EROSION CONTROL
SIGNING AND
PAVEMENT MARKING
SHEET

SHEET 1 OF 1



SIGNS					PERFORATED SQUARE STEEL TUBE									REMARKS AND OTHER REQUIRED ITEMS
2 INCH POST														
SIGN NO.	SIGN SIZE	STATION	HORIZ CLEAR IF NOT STD	LOCATION	SIGN DTL. SHT NO.	POST	POST	POST	TOTAL ITEM NO. 9031270A	ANCHORS			BREAK - AWAY ASSEMBLY ITEM NO. 9031241	
						NO.1	NO.2	NO.3		DRIVEN 12 GA. ITEM NO. 9031271A	DRIVEN 7 GA. ITEM NO. 9031273A	CONCRETE 7 GA. ITEM NO. 9031274		
						LF	LF	LF	LF	EACH	EACH	EACH	EACH	
1	12 X 36	521+92		15' RT		16			16		1			
2	12 X 36	522+12		13.5' RT		16			16		1			
3	12 X 36	522+32		12' RT		16			16		1			
4	12 X 36	522+08		15' LT		16			16		1			
5	12 X 36	522+28		13.5' LT		16			16		1			
6	12 X 36	522+48		12' LT		16			16		1			
7	12 X 36	523+56		12' RT		16			16		1			
8	12 X 36	523+76		13.5' RT		16			16		1			
9	12 X 36	523+96		15' RT		16			16		1			
10	12 X 36	523+73		12' LT		16			16		1			
11	12 X 36	523+93		13.5' LT		16			16		1			
12	12 X 36	524+13		15' LT		16			16		1			
SUBTOTAL									192	0	12	0	0	
TOTAL									192	0	12	0	0	

STANDARD SIGN ASSEMBLIES							SIGN SUMMARY							
SIGN NO.	LOG MILE OR STATION	LOCATION	STANDARD SIGN TYPE & NUMBER OF EACH				STANDARD SIGN OR SPECIAL SIGN	SIGN DETAIL SHEET NO.	NO. EACH	SIGN SIZE & TYPE & SQUARE FEET				
										SIGN SIZE INCHES	FLAT SHEET SH ITEM NO. 9035004A	FLAT SHEET FLUORESCENT SHF * ITEM NO. 9035069A	STRUCTURAL ST ITEM NO. 9035011A	STRUCTURAL FLUORESCENT STF * ITEM NO. 9035071A
			OM3-R	OM3-L										
1	521+92	15' RT	1				OM3-R		6	12 X 36		18		
2	522+12	13.5' RT	1				OM3-L		6	12 X 36		18		
3	522+32	12' RT	1											
4	522+08	15' LT		1										
5	522+28	13.5' LT		1										
6	522+48	12' LT		1										
7	523+56	12' RT	1											
8	523+76	13.5' RT	1											
9	523+96	15' RT	1											
10	523+73	12' LT		1										
11	523+93	13.5' LT		1										
12	524+13	15' LT		1										
										TOTALS		36		
NO. OF STD SIGNS			6	6	0	0				USE		36		

SIGN QUANTITIES SHEET
SHEET 1 OF 1

D-29/D-30

STATE OF MISSOURI

MATTHEW B. FIELDS

NUMBER
PE-2024005189

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

DATE PREPARED
10/27/2025

ROUTE
H

STATE
MO

DISTRICT
SW

SHEET NO.
7

COUNTY
JASPER

JOB NO.
JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013

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Authority #2003007599

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& COMPANY

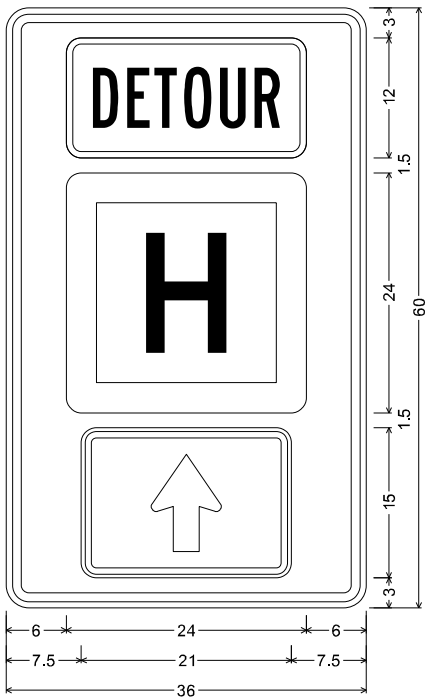
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JEFFERSON CITY, MO 65102
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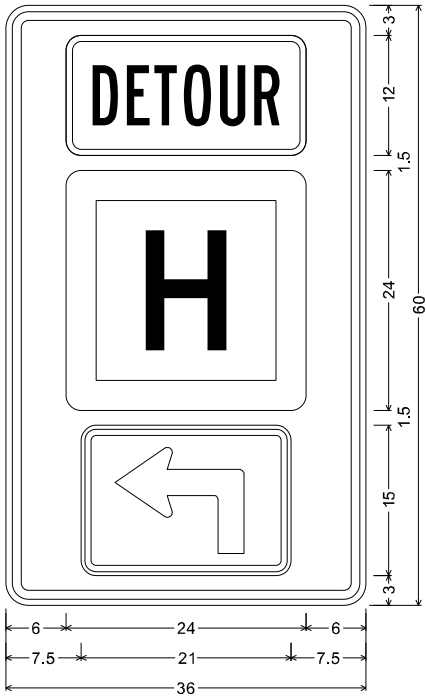
70



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

	6.000
	6.000
	7.500

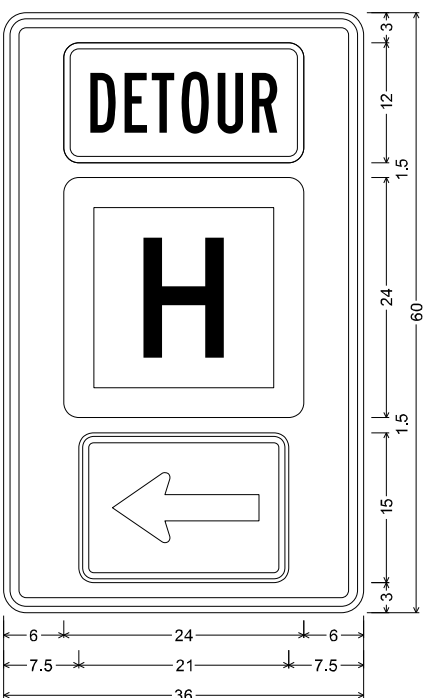
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MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

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	6.000
	7.500

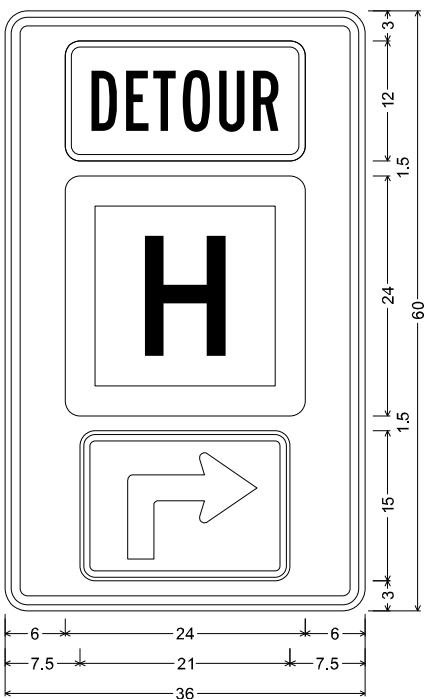
72



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

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	6.000
	7.500

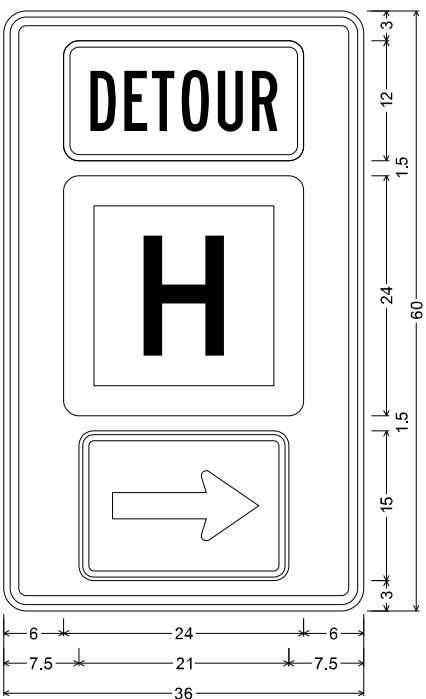
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MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

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	6.000
	7.500

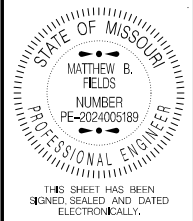
74



MO4-12 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
Table of letter and object lefts

	6.000
	6.000
	7.500

TRAFFIC CONTROL SHEET
SHEET 2 OF 2



DATE PREPARED 10/27/2025	
ROUTE H	STATE MO
DISTRICT SW	SHEET NO. 9
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

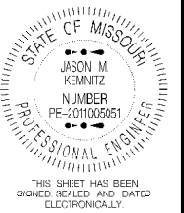
105 WEST CAPITOL
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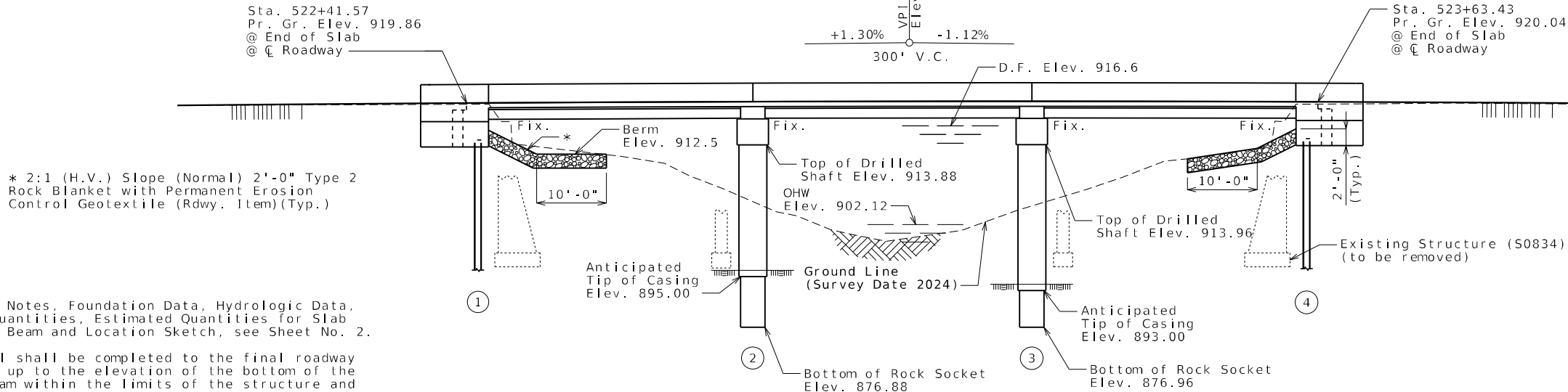
(39.4'-40'-39.4') PRESTRESSED CONCRETE SPREAD BOX BEAM SPANS
SKEW: 35° L.A.

SEC/SUR 15 & 22 TWP 30N RGE 32W

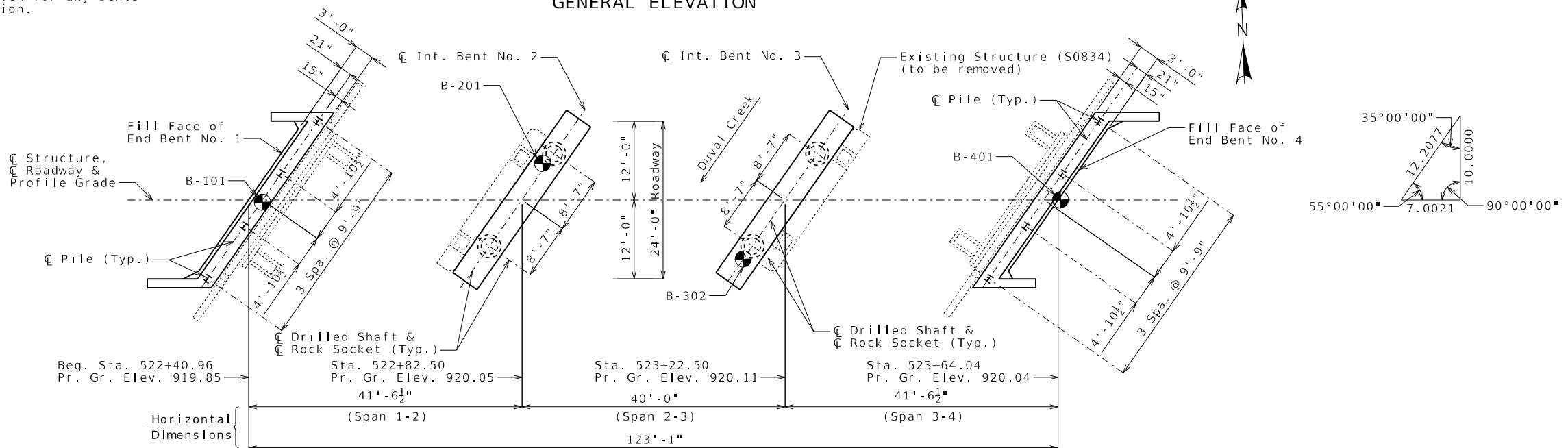


DATE PREPARED 11/10/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9602	

DESCRIPTION	DATE



GENERAL ELEVATION



PLAN

⊕ Indicates location of borings.

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet No. 21 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

C.P. #1 -
N. 428461.565, E. 2805465.543, ELEV. 914.017

C.P. #2 -
N. 428437.177, E. 2805693.953, ELEV. 916.627

C.P. #3 -
N. 428366.323, E. 2806672.907, ELEV. 918.005

BRIDGE: ROUTE H OVER DUVAL CREEK

STATE ROAD FROM ROUTE 43 TO ROUTE J
ABOUT 2.3 MILES EAST OF ROUTE 43
BEGINNING STATION 522+40.96

Designed July 2025
Detailed July 2025
Checked Sept. 2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 21

Estimated Quantities				
Item		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	70		70
Removal of Bridge (S0834)	lump sum			1
Bridge Approach Slab (Minor)	sq. yard		115	115
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	66.0		66.0
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	82.0		82.0
Video Camera Inspection	each	4		4
Foundation Inspection Holes	linear foot	122.0		122.0
Sonic Logging Testing	each	4		4
Galvanized Structural Steel Piles (12 in.)	linear foot	184		184
Dynamic Pile Testing	each	2		2
Pile Point Reinforcement	each	8		8
Class B Concrete (Substructure)	cu. yard	31.1		31.1
Class B-1 Concrete (Substructure)	cu. yard	35.8		35.8
Type H Barrier	linear foot		270	270
Slab on Concrete Beam	sq. yard		365	365
17 in., Prestressed Concrete Spread Box Beam	linear foot		355	355
Reinforcing Steel (Bridges)	pound	17,810		17,810
Slab Drain	each		20	20
Vertical Drain at End Bents	each		2	2
Plain Neoprene Bearing Pad	each		6	6
Laminated Neoprene Bearing Pad	each		12	12

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete Beam.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete Beam.

Estimated Quantities for Slab on Concrete Beam		
Item		Total
Class B-2 Concrete	cu. yard	117
Reinforcing Steel (Epoxy Coated)	pound	31,510

Slab shall be cast-in-place with conventional forms or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

The table of Estimated Quantities for Slab on Concrete Beam represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Stay-In-Place Corrugated Steel Forms:

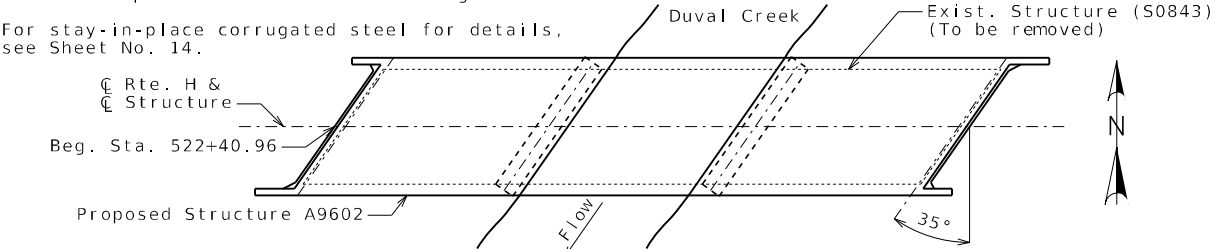
Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of beam flanges. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the flange. Welding on or drilling holes in the beam flanges will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for beam loading.

For stay-in-place corrugated steel for details, see Sheet No. 14.



General Notes:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
2023 AASHTO Guide Specifications for LRFD Seismic Bridge Design (3rd Ed.)
Seismic Design Category = A (Nonseismic)

Design Loading:
Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Simply-Supported, Non-Composite for dead load.
Continuous Composite for live load.

Design Unit Stresses:
Class B Concrete (Substructure) f'c = 3,000 psi
Class B-2 Concrete (Drilled Shafts & Rock Sockets) f'c = 4,000 psi
Class B-2 Concrete (Superstructure, except Prestressed Beams and Barrier) f'c = 4,000 psi
Class B-1 Concrete (Substructure) f'c = 4,000 psi
Class B-1 Concrete (Barrier) f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50) fy = 50,000 psi

For prestressed box beam stresses, see Sheet No. 9.

Neoprene Pads:
Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:
All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Traffic Handling:
Structure to be closed during construction. Traffic to be maintained on other routes during construction. See roadway plans for traffic control.

Foundation Data					
Type	Design Data	Bent Number			
		1	2	3	4
Load Bearing Pile	Pile Type and Size	HP 12x53	-	-	HP 12x53
	Number ea	4	-	-	4
	Approximate Length Per Each ft	23	-	-	23
	Pile Point Reinforcement ea	All	-	-	All
	Min. Galvanized Penetration (Elev.) ft	Full Length	-	-	Full Length
	Minimum Tip Penetration (Elev.) ft	892.71	-	-	892.91
	Criteria for Min. Tip Penetration	Bear on Rock	-	-	Bear on Rock
	Pile Driving Verification Method	DT			DT
	Resistance Factor	0.65	-	-	0.65
	Minimum Nominal Axial Compressive Resistance kip	247	-	-	247
Rock Socket	Number ea	-	2	2	-
	Layer 1	Foundation Material	-	Weak Rock	Weak Rock
		Elevation Range ft	-	892.0-878.3	890.0-878.9
	Layer 2	Minimum Nominal Axial Compressive Resistance (Side Resistance) ksf	-	6.4	6.4
		Foundation Material	-	Strong Rock	Strong Rock
		Elevation Range ft	-	878.3-870.0	878.9-868.7
		Minimum Nominal Axial Compressive Resistance (Side Resistance) ksf	-	12.2	12.2
		Minimum Nominal Axial Compressive Resistance (Tip Resistance) ksf	-	31.6	33.0

Load Bearing Pile:
Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

DT = Dynamic Testing

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

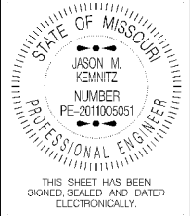
All piles shall be galvanized down to the minimum galvanized penetration (elevation).

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in the penetrations less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

Rock Socket (Drilled Shafts):
Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factors}}$ (Side Resistance + Tip Resistance)

Hydrologic Data	
Drainage Area = 12.0 mi ²	
Design Flood Frequency = 50 years	
Design Flood Discharge = 5,000 cfs	
Design Flood (D.F.) Elevation = 916.5	
Base Flood (100-year)	
Base Flood Elevation = 917.2	
Base Flood Discharge = 5,900 cfs	
Estimated Backwater = 1.4 ft	
Average Velocity thru Opening = 6.6 ft/s	
Freeboard (50-year)	
Freeboard = 1.0 ft	
Roadway Overtopping	
Overtopping Flood Discharge = 6,100 cfs	
Overtopping Flood Frequency = >100 years	
Overtopping Flood Elevation = 916.4	



DATE PREPARED 11/12/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9602	

DESCRIPTION						
DATE						

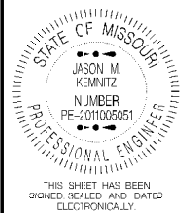
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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DATE PREPARED 11/10/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9602	

DESCRIPTION	DATE

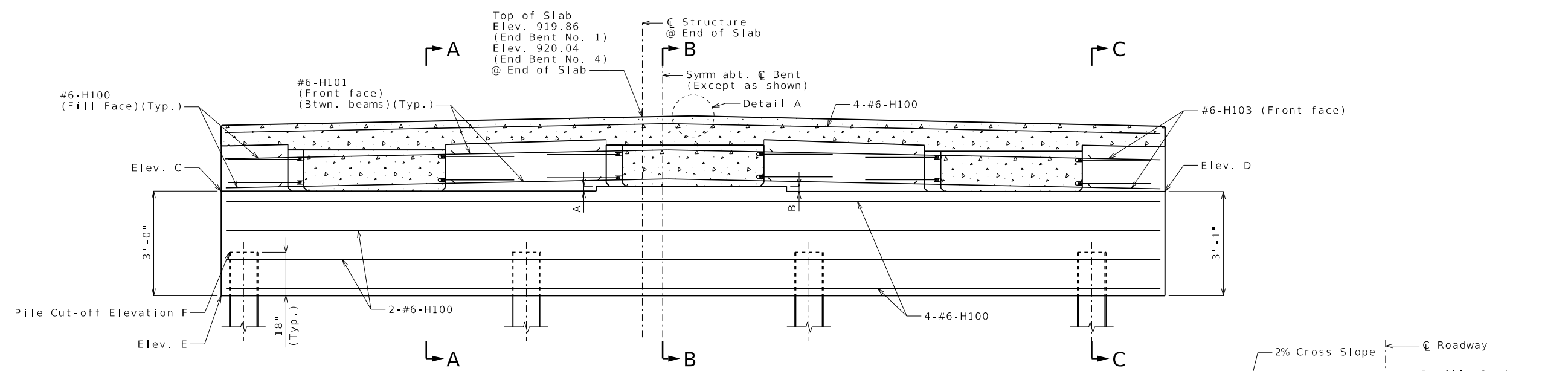
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

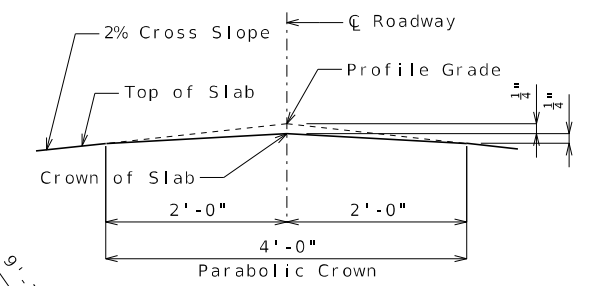
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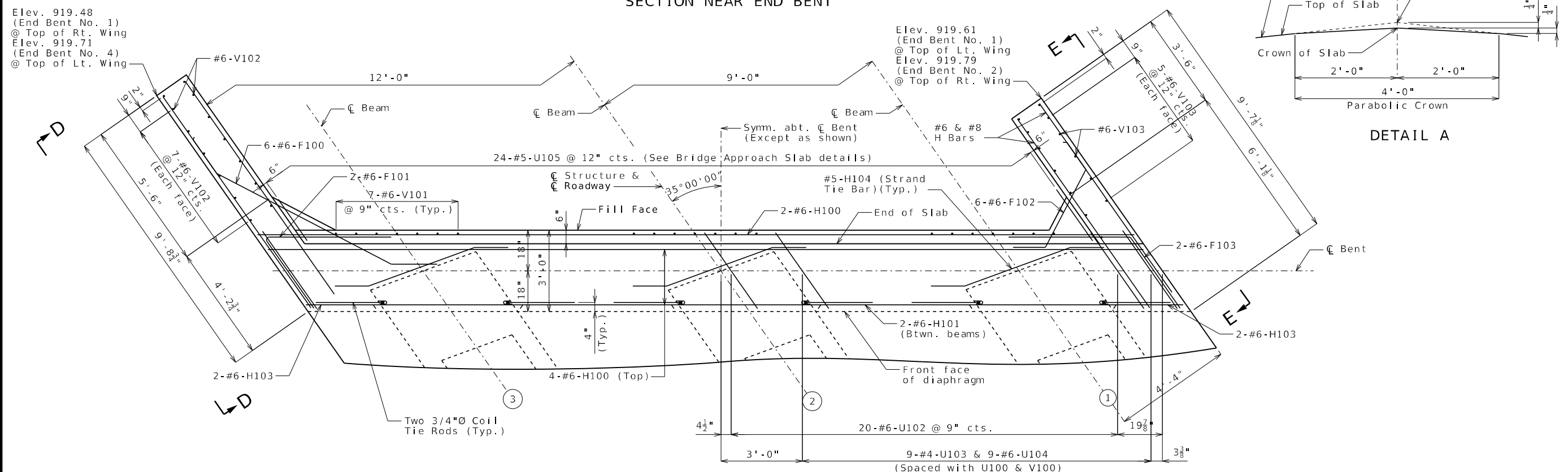
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SECTION NEAR END BENT



DETAIL A



PART PLAN

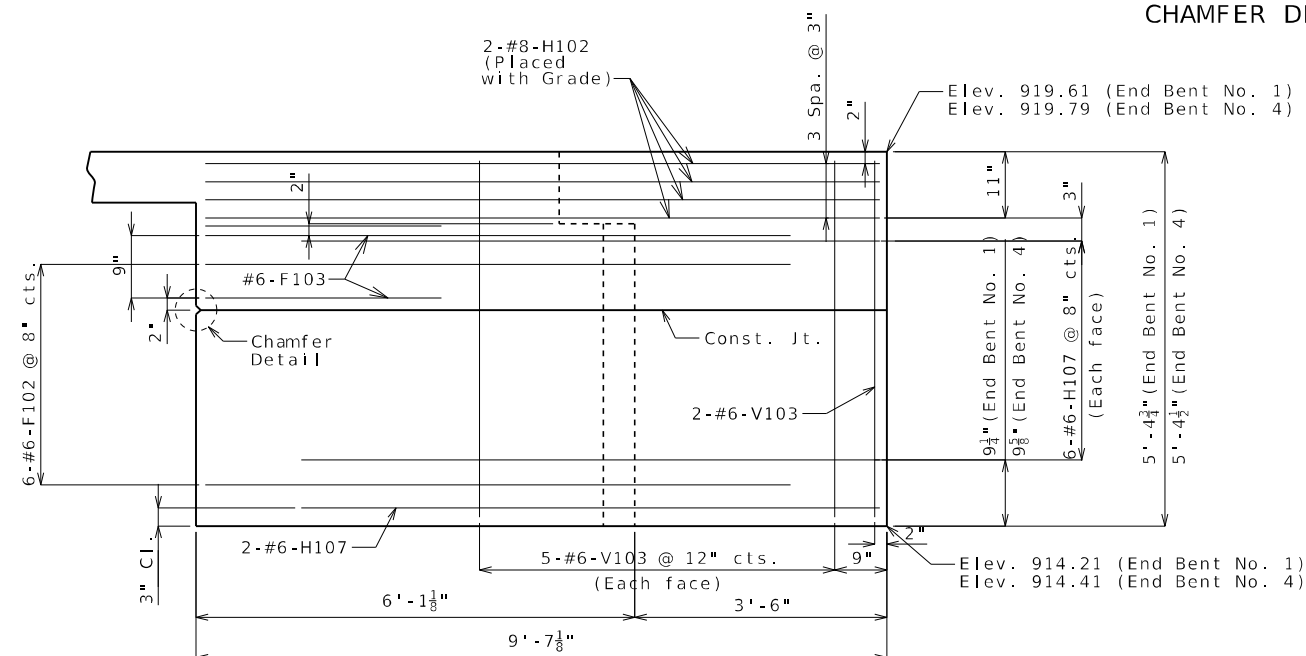
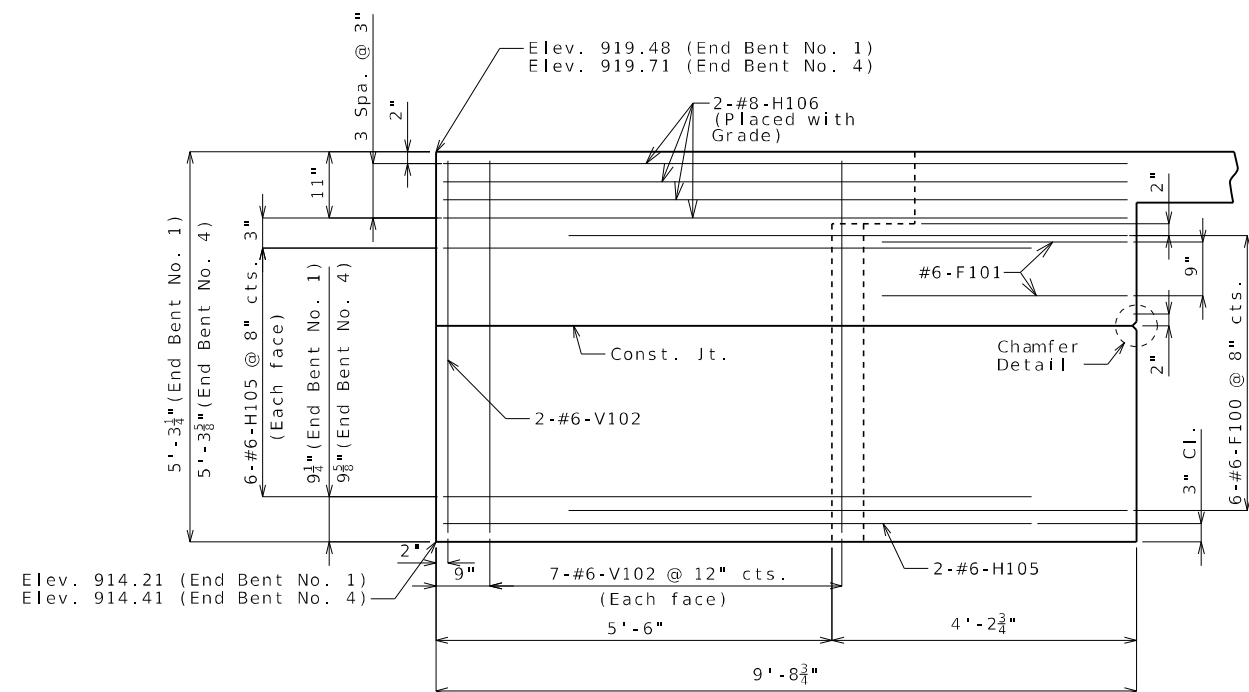
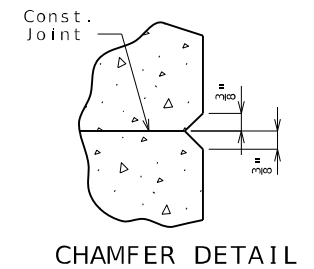
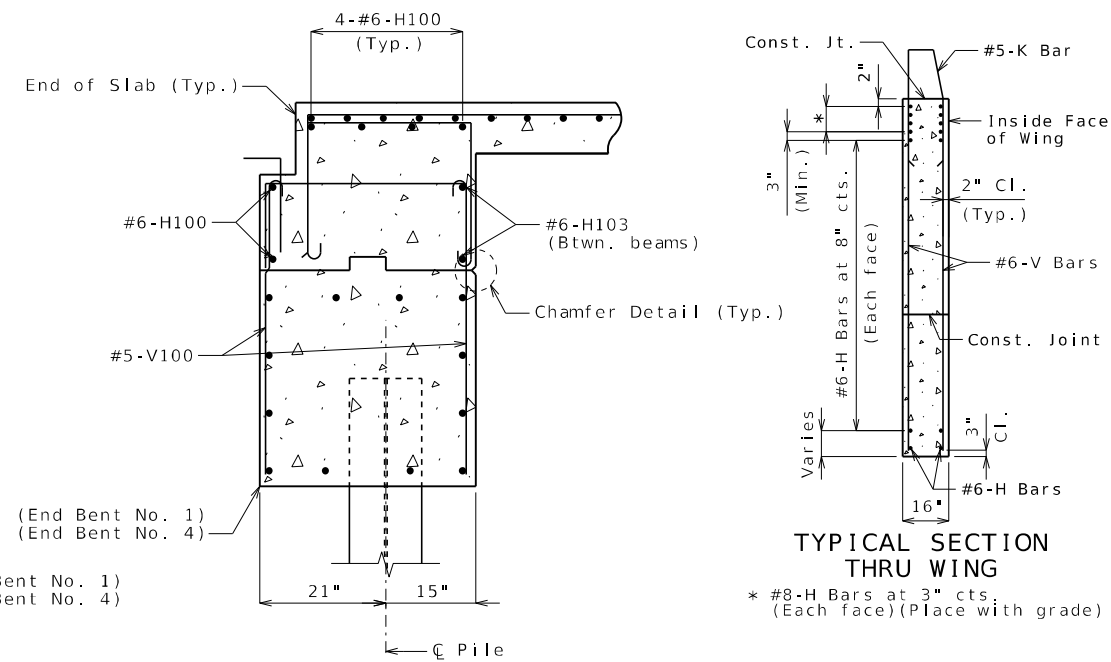
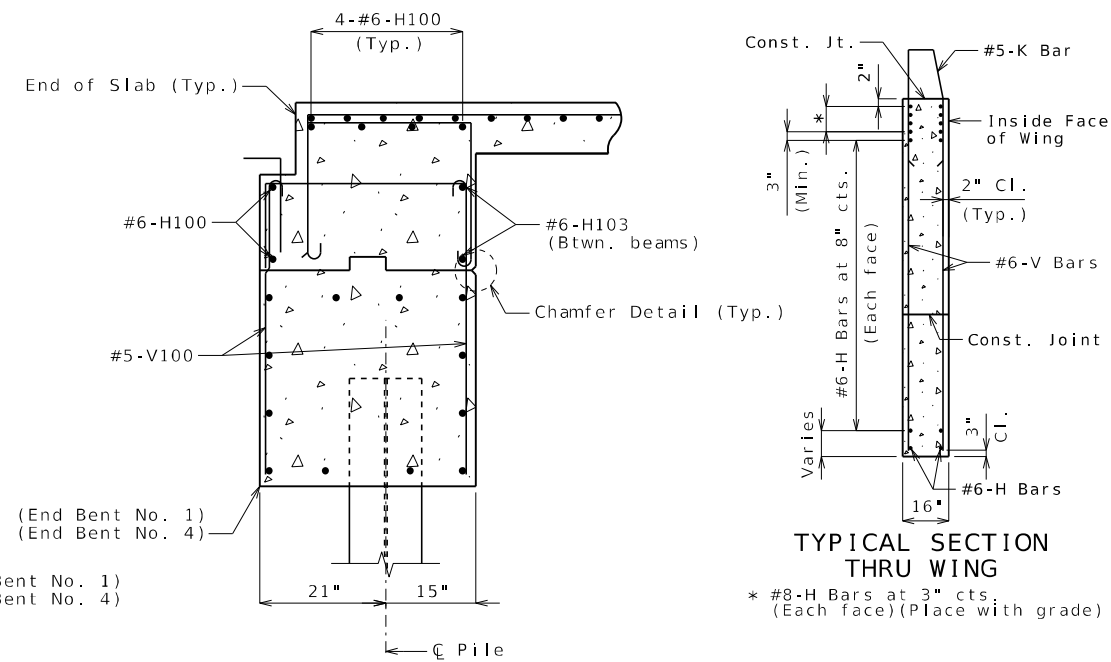
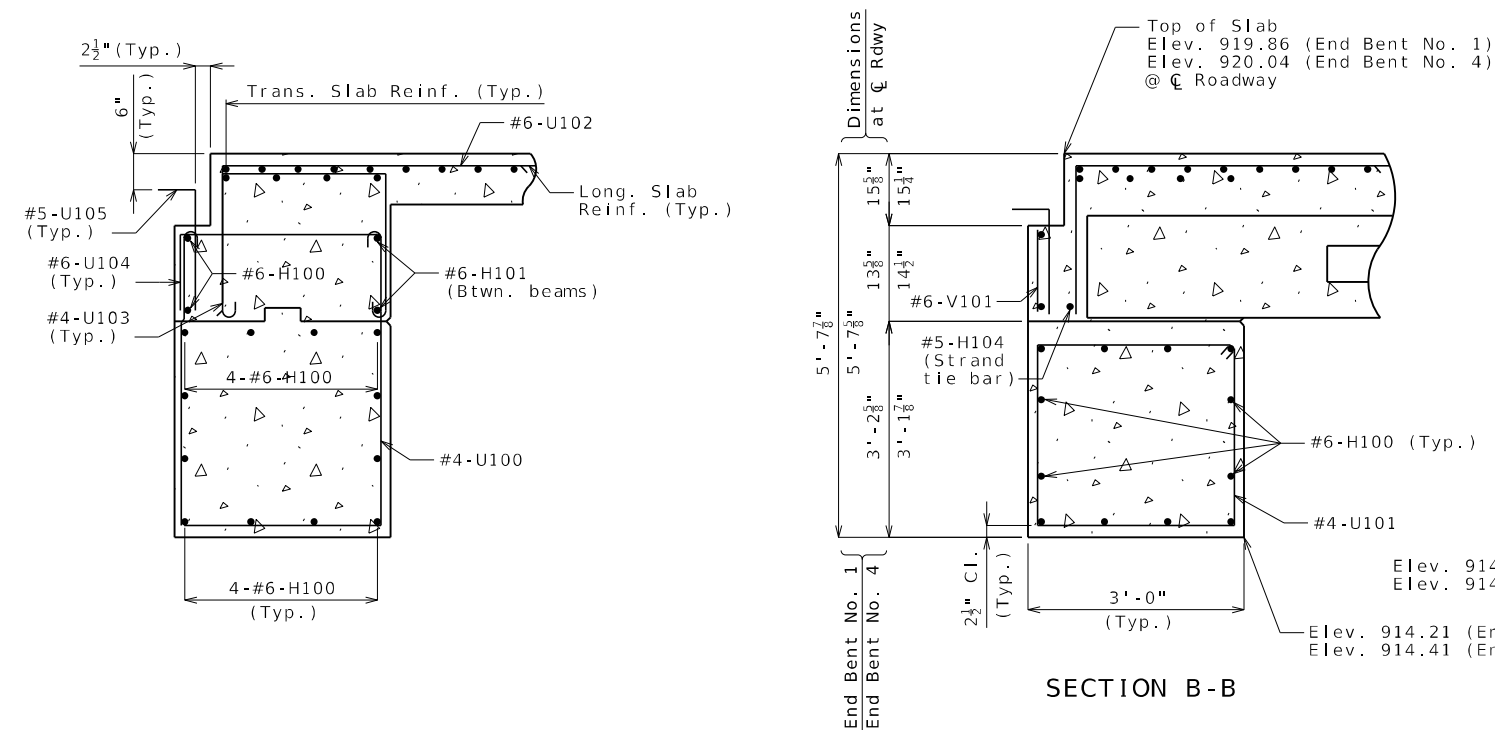
END BENT DATA					
Bent No.	A	B	C	D	F
1	2 3/8"	1 3/8"	917.21	917.29	914.21
4	1 3/8"	2 3/8"	917.41	917.45	914.41

Notes:

- Work this sheet with Sheets No. 3 & 5.
- For Sections A-A, B-B & C-C and Elevations D-D & E-E, see Sheet No. 5.
- The #6-F100 and #6-F102 bars shall be bent in the field to clear beams.
- The U bars and pairs of V bars shall be placed parallel to centerline of roadway.
- All concrete in the end bent beam shall be Class B.
- All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

- Strands at end of the beams shall be field bent or, if necessary, cut in field to maintain 1 1/2-inch minimum clearance to fill face of end bent.
- For location of coil tie rods and #5-H104 (strand tie bar), see Sheet No. 9.
- For details of vertical drain at end bent, see Sheet No. 6.
- For details of bridge approach slab, see Sheet No. 17.
- Bar marks for End Bent No. 1 shown (100 Series), End Bent No. 4 similar (400 Series).

END BENTS NO. 1 & 4
(End Bent No. 1 shown, End Bent No. 4 similar)



Notes :

Work this sheet with Sheets No. 3 & 4.

For locations of Sections A-A, B-B & C-C
and Elevations D-D & E-E, see Sheet No. 4.

For reinforcement of barrier, see
Sheets No. 15 & 16.

Bar Marks for End Bent No. 1 shown (100 Series),
End Bent No. 4 similar (400 Series).



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ELECTRONICALLY.

DATE PREPARED
11/10/2025

ROUTE	STATE
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H	MO
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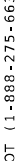
DISTRICT	SHEET NO.
DD	5

BR	5
COUNTY	

COUNTY
LASPER

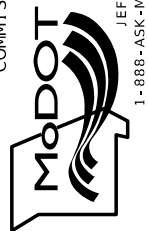
JASTER
JOB NO.

JSR0142

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MISSOURI HIGHWAYS AND TRANSPORTATION
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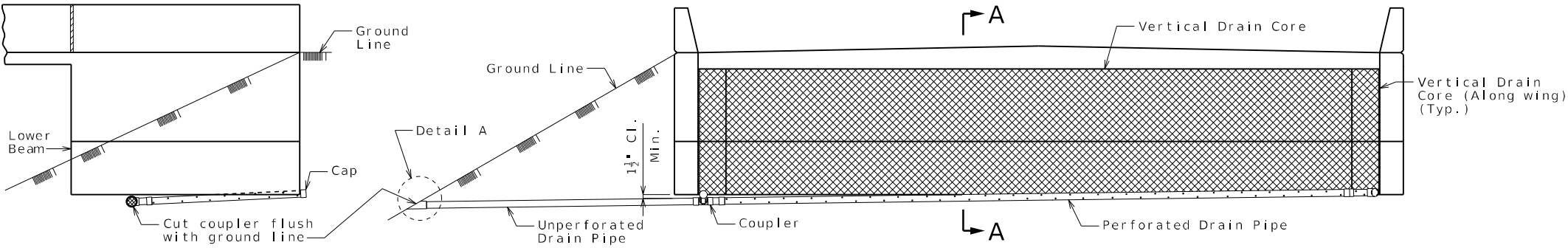
Detailed July 2025
Checked Sept. 2025

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 21

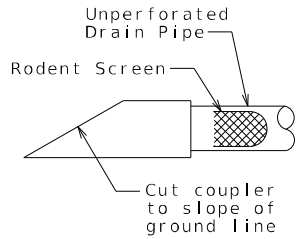
END BENTS NO. 1 & 4

B_A9602_005_JSR0142_END BENT NO. 1 AND 2 DETAILS.dgn 2:29:40 PM 11/10/2025

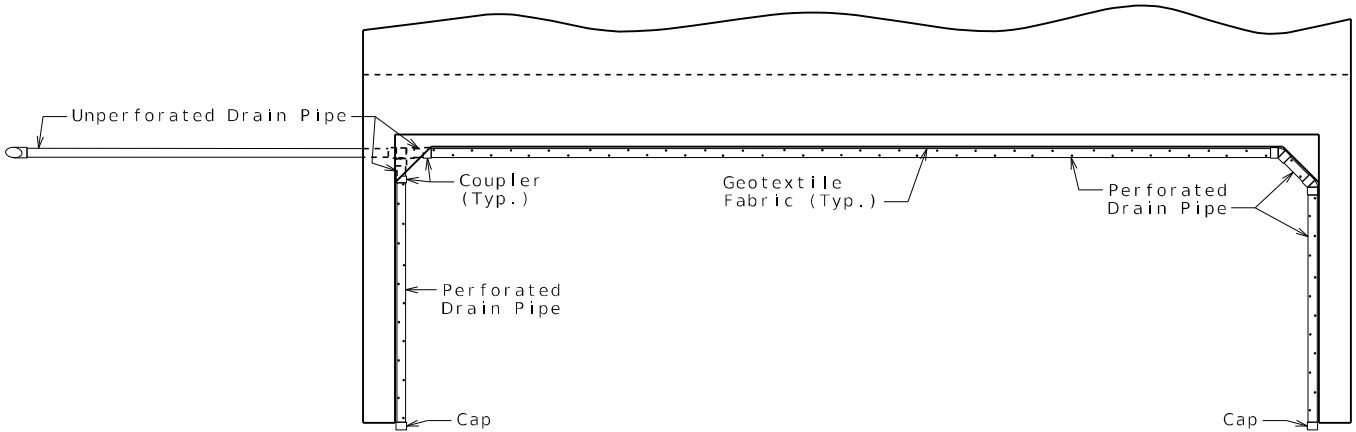


ELEVATION OF WING

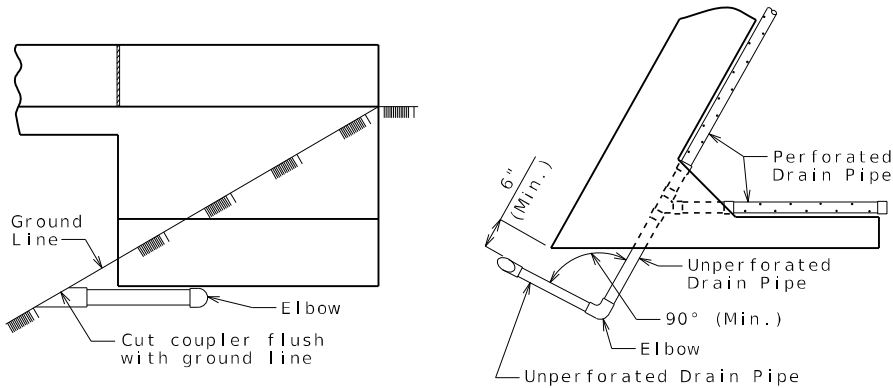
ELEVATION OF END BENT



DETAIL A



PLAN OF END BENT

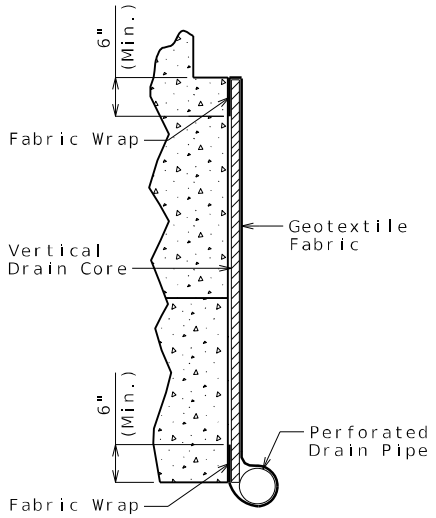


ELEVATION OF WING

PART PLAN

OPTIONAL TURNED DRAIN

(Use only when straight drain is not practical.)



PART SECTION A-A
(Section thru wing similar)

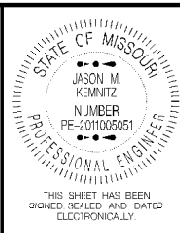
General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



DATE PREPARED 11/10/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 6
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9602	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

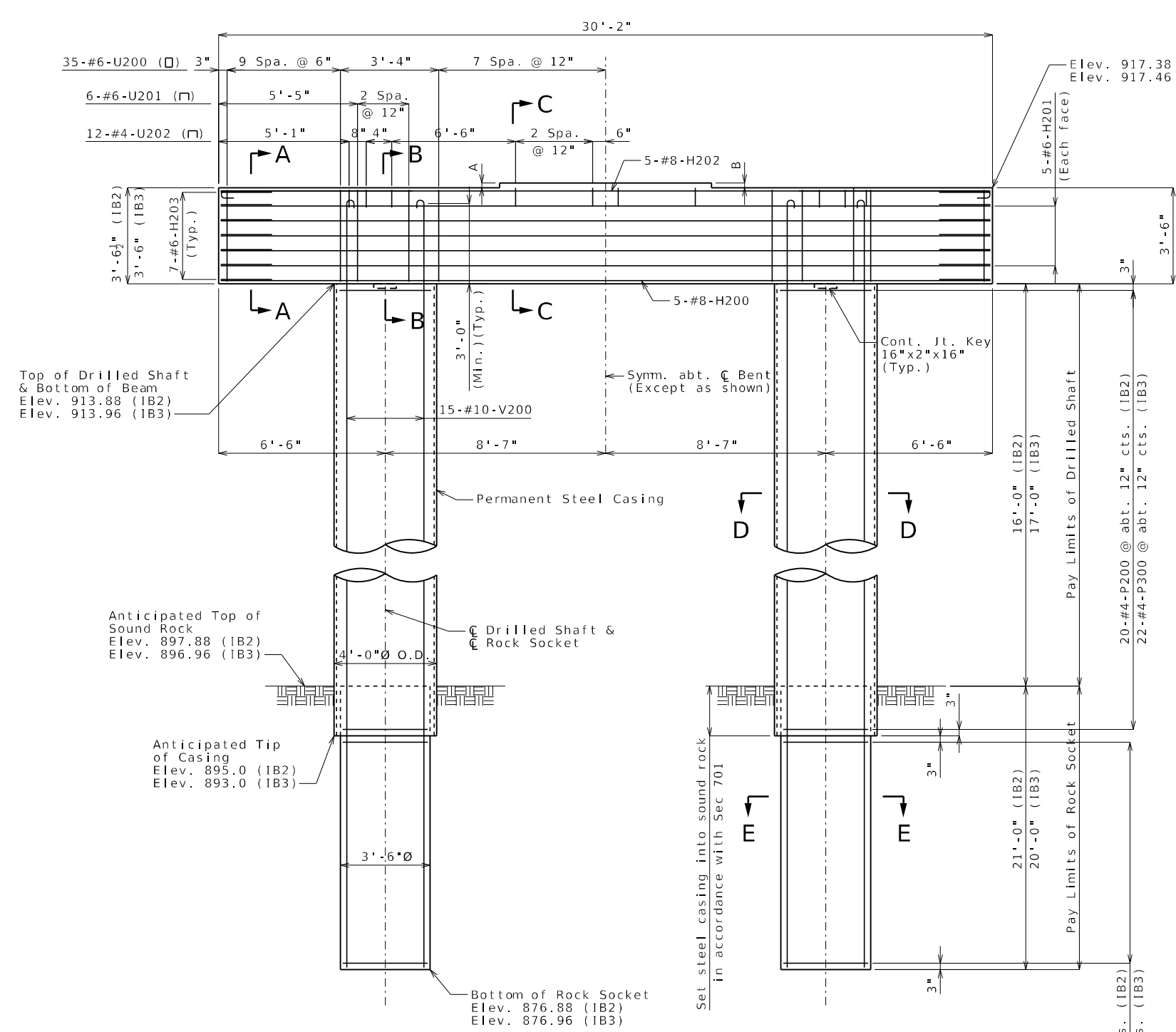
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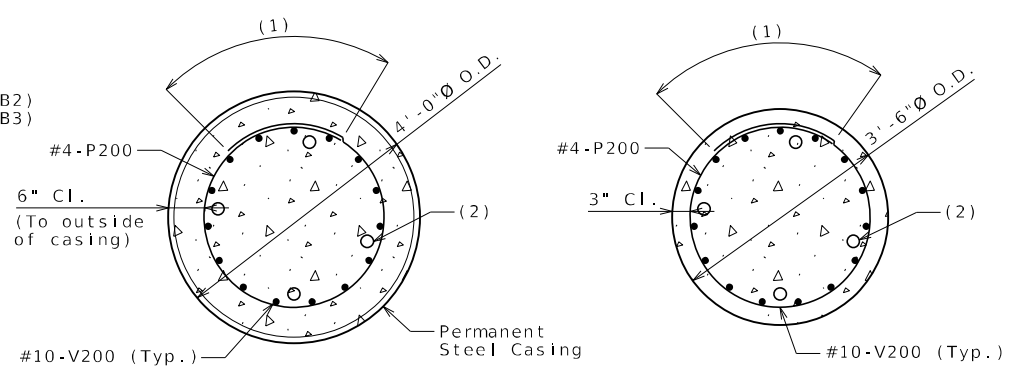
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VERTICAL DRAIN AT END BENTS
(Squared end bent shown, skewed end bent similar)

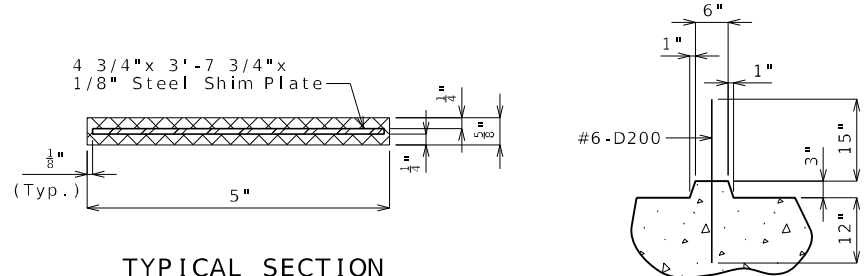


ELEVATION
(Keys not shown for clarity)

INTERMEDIATE BENT DATA			
Bent No.	A	B	
2	2 1/4"	2 1/4"	
3	2 1/4"	2 1/4"	



SECTION D-D
(1) 2'-0" Min. Lap (#4-P200)(Stagger adjacent bar splices)
(2) 2"Ø Steel Pipe for sonic logging testing (4 each shaft)



TYPICAL SECTION
THRU LAMINATED
NEOPRENE BEARING PAD

SECTION THRU KEY

Substructure Quantity Table for Bents No. 2 & 3			
Item		Quantity	
		IB2	IB3
Drilled Shafts (4 ft. 0 in. Dia.)	linear foot	32.0	34.0
Rock Sockets (3 ft. 6 in. Dia.)	linear foot	42.0	40.0
Video Camera Inspection	each	2	2
Foundation Inspection Holes	linear foot	62.0	60.0
Sonic Logging Testing	each	2	2
Class B-1 Concrete (Substructure)	cu. yard	17.9	17.9
Reinforcing Steel (Bridges)	pound	8,902	8,903

These quantities are included in the Estimated Quantities table on Sheet No. 2.

- Notes:
- Work this sheet with Sheet No. 8.
- For Sections A-A, B-B & C-C, see Sheet No. 8.
- All concrete in the intermediate bent beam shall be Class B-1.
- All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.
- Thickness of permanent steel casing shall be in accordance with Sec 701.
- An additional 4 feet has been added to V-bar lengths and additional 8-#4-P200 an and 8-#4-P300 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6-inch centers.
- Sonic logging testing shall be performed on all drilled shafts and rock sockets.
- At the contractor's option, the hooks of vertical bars embedded in the beam cap may be oriented inward or outward.
- Bar marks for Intermediate Bent No. 2 shown (200 series), Intermediate Bent No. 3 similar (300 series).
- (IB2) = Intermediate Bent No. 2
(IB3) = Intermediate Bent No. 3

INTERMEDIATE BENTS NO. 2 & 3

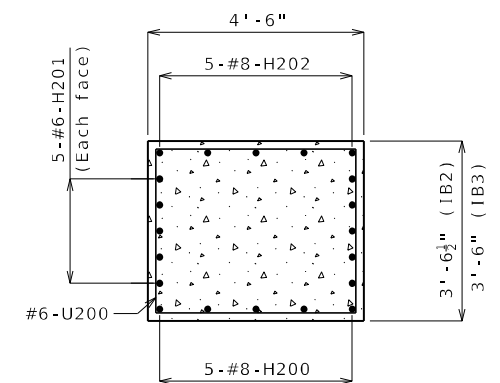
STATE OF MISSOURI
JASON M. JOHNSON
PROFESSIONAL ENGINEER
NUMBER PE-001003051
THIS SHEET HAS BEEN
DESIGNED, SEALED AND DATED
ELECTRONICALLY.

DATE PREPARED
11/12/2025
ROUTE
H
DISTRICT
BR
COUNTY
JASPER
JOB NO.
JSR0142
CONTRACT ID.
PROJECT NO.
BRIDGE NO.
A9602

DESCRIPTION
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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4'-6"

5-#6-H201 (Each face)

3'-6 1/2" (IB2)

3'-6" (IB3)

5-#8-H202

#4-U202

#6-U201

#4-P200

3" (Typ.)

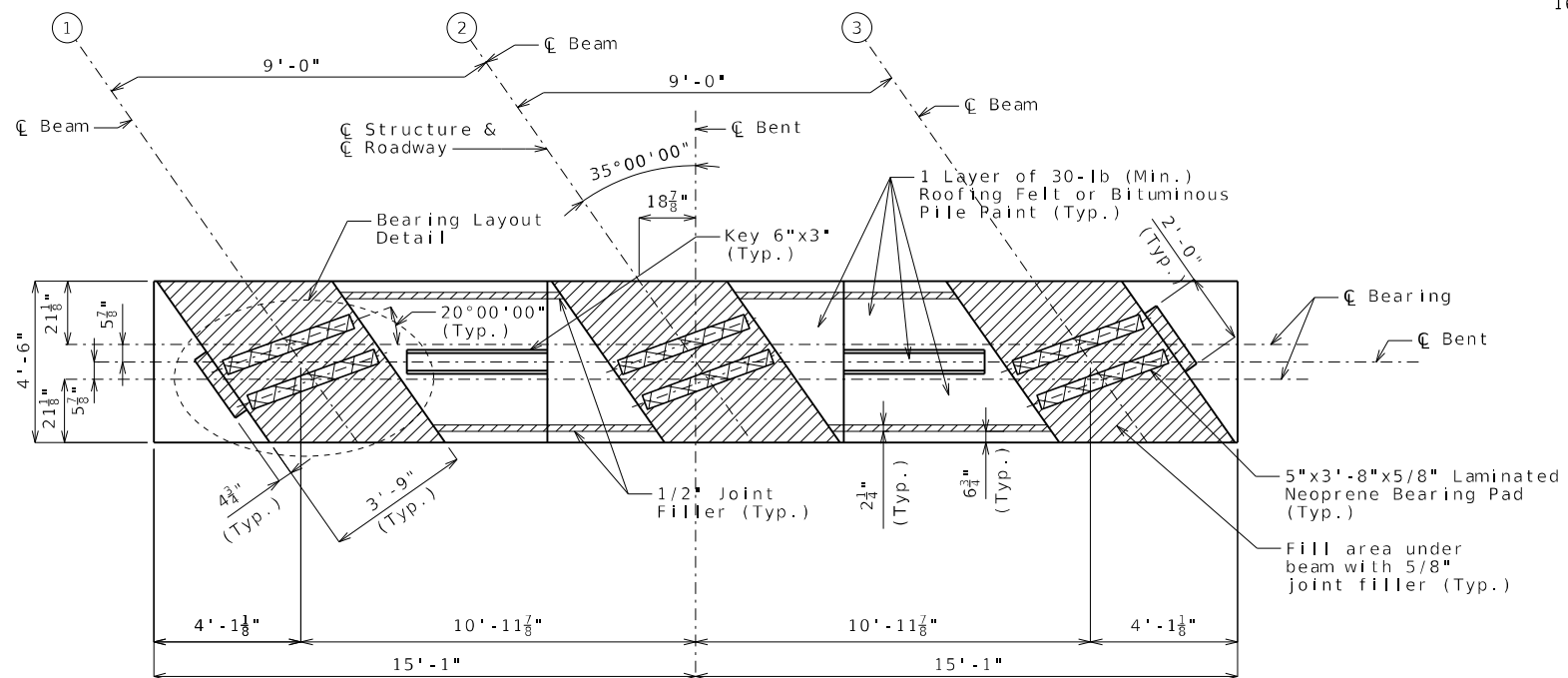
Permanent Steel Casing

Const. Key Jt. 16" x 2" x 16"

15-#10-V200

5-#8-H200

Figure 1: Reinforcement details of the slab. The diagram shows a square slab with dimensions 4' - 6" by 3' - 8 3/4". The slab is reinforced with 5-#6-H201 (Each face) along the top and bottom edges, 5-#8-H202 along the top and bottom edges, and 5-#8-H200 along the left and right edges. A central reinforcement bar is labeled #4-U202. The slab is also reinforced with #6-U200 along the bottom edge. The slab is supported by 3' - 8 3/4" (IB2) and 3' - 8 3/4" (IB3) beams.

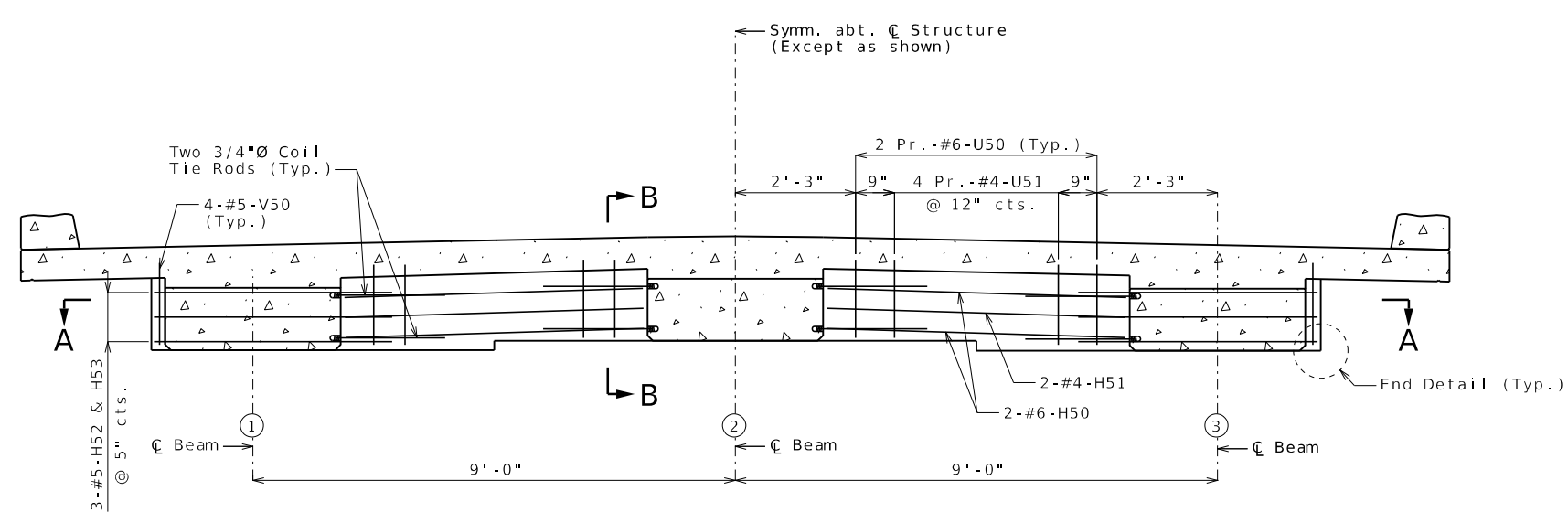


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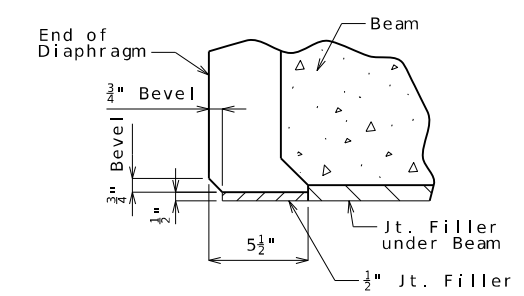
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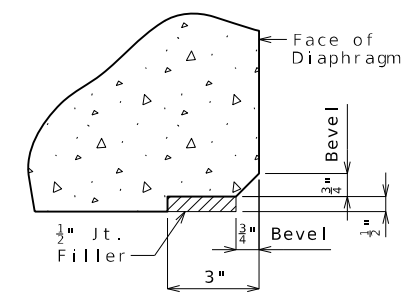
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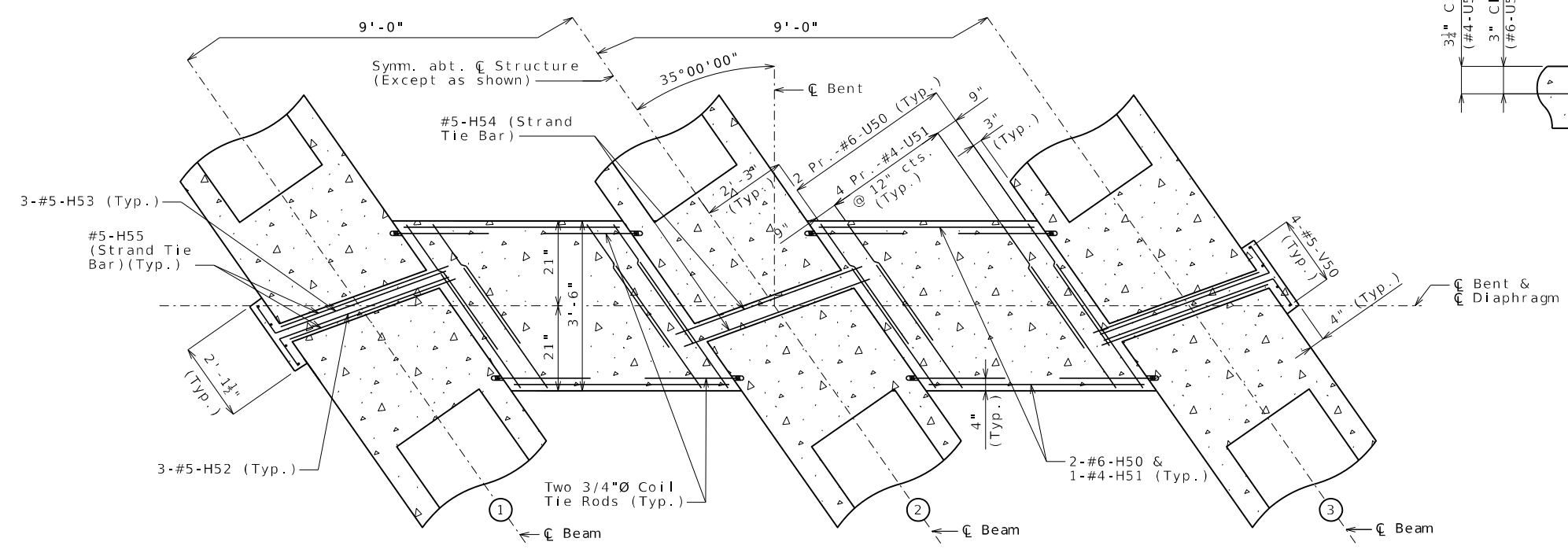
SECTION NEAR INTERMEDIATE BENT
Normal to Centerline of Structure



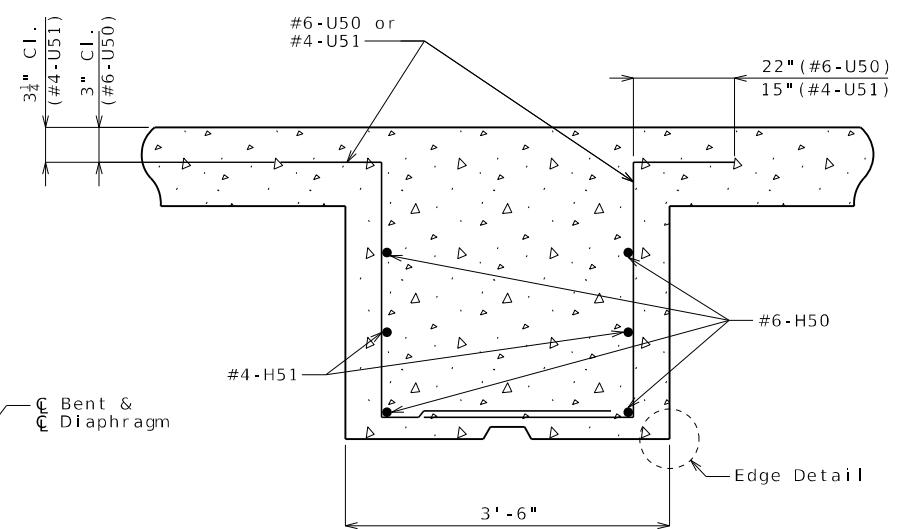
END DETAIL



EDGE DETAIL



SECTION A-A



SECTION B-B

- Notes:
- For location of Strand Tie Bars, see Sheet No. 9.
 - For location and details of Coil Tie Rods, see Sheet No. 9.
 - Diaphragms at intermediate bents shall be built vertical.
 - All U-bars in diaphragms are to be parallel to centerline of roadway.



DATE PREPARED 11/10/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 10

COUNTY
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BRIDGE NO.
A9602

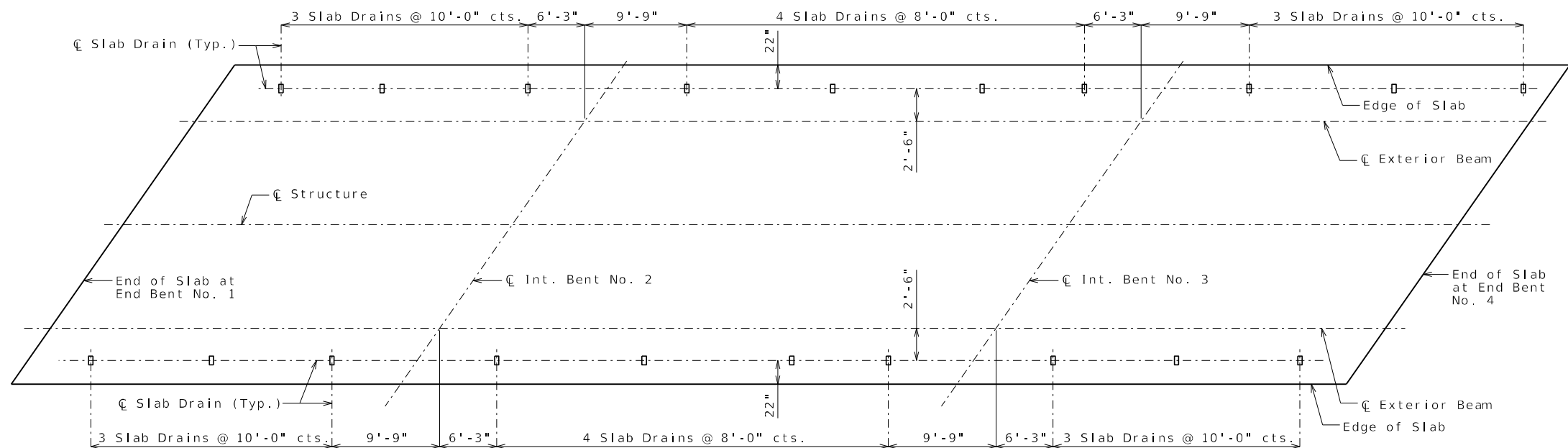
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

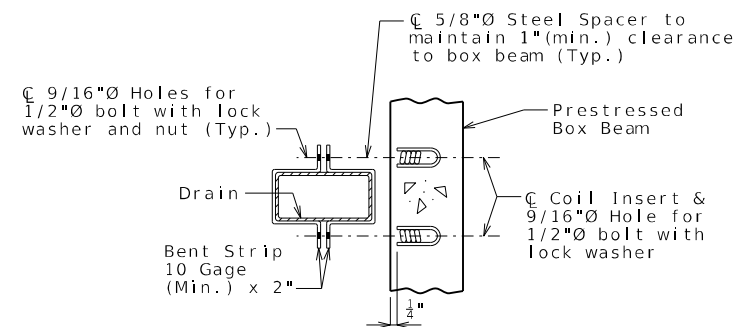
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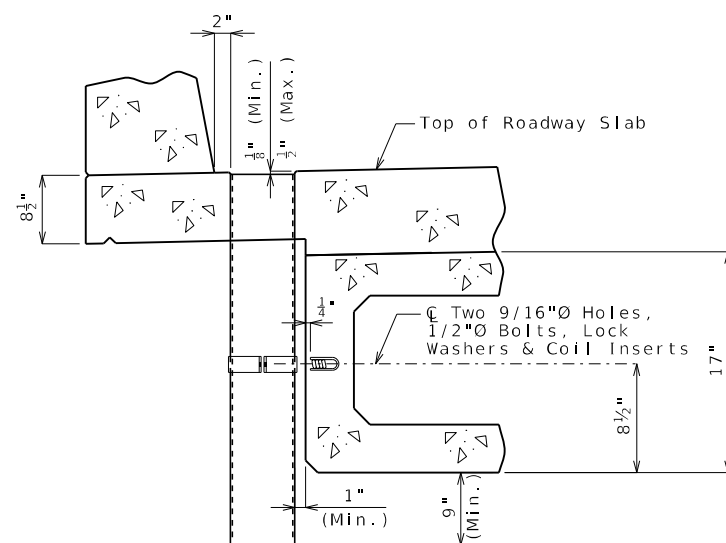
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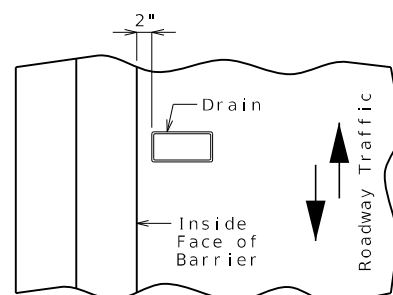
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



PART SECTION SHOWING BRACKET ASSEMBLY

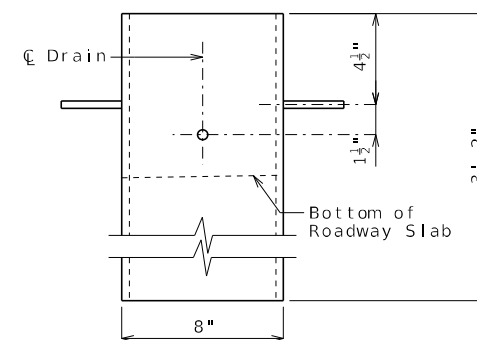


PART SECTION NEAR DRAIN

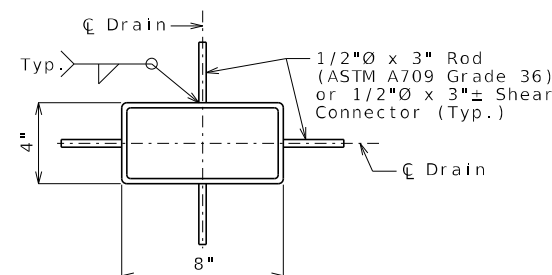


PART PLAN OF SLAB AT DRAIN

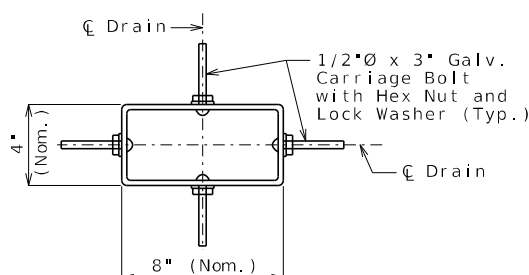
SLAB DRAINS



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Slab drain bracket assembly shall be ASTM A709 Grade 36 steel.

Locate drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drains.

The coil inserts and bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

All 1/2"Ø bolts shall be ASTM A307.

Shop drawings will not be required for the slab drains and the bracket assembly.

The coil inserts required for the bracket assembly attachment shall be located on the prestressed beam shop drawings.

Coil inserts shall have a concrete pull-out strength (ultimate load) of at least 2,500 pounds in 5,000 psi concrete.

The bolts required to attach the slab drain bracket assembly to the prestressed beam shall be supplied by the prestressed beam fabricator.

Notes for Steel Drain:

Slab drains may be fabricated of either 1/4" welded sheets of ASTM A709 Grade 36 steel or from 1/4" structural steel tubing ASTM A500 or A501.

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

Drains shall be machine filament-wound thermosetting resin tubing meeting the requirements of ASTM D2996 with the following exceptions:

Shape of drains shall be rectangular with outside nominal dimensions of 8" x 4".

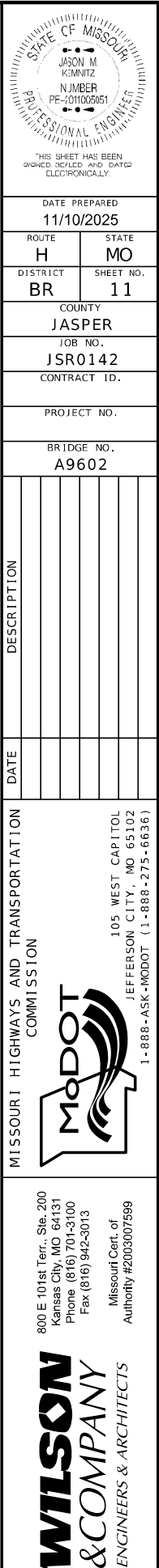
Minimum reinforced wall thickness shall be 1/4 inch.

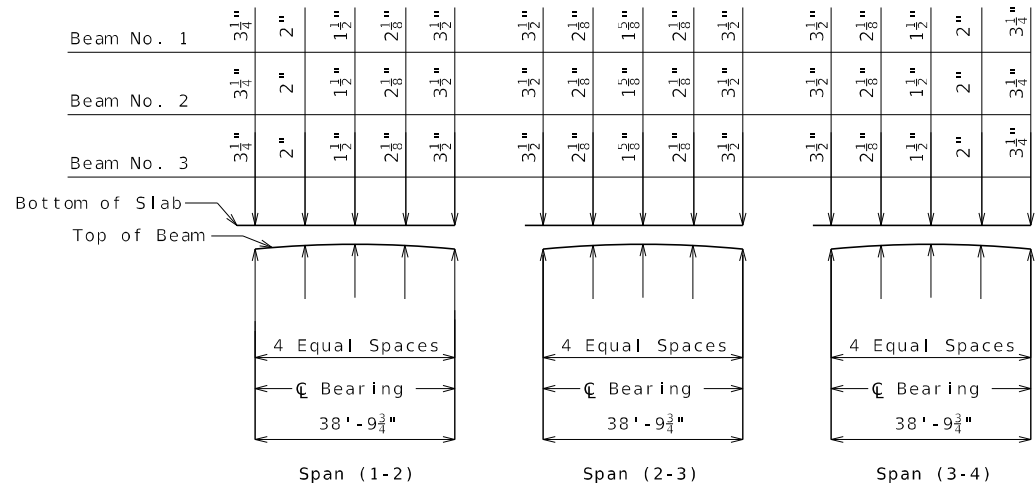
The resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed throughout. Drains may have an exterior coating for additional UV resistance.

The color of the slab drain shall be gray (Federal Standard #26373). The color shall be uniform throughout the resin and any coating used.

The combination of materials used in the manufacture of the drains shall be tested for UV resistance in accordance with ASTM D4329 Cycle A. The representative material shall withstand at least 500 hours of testing with only minor discoloration and without any physical deterioration. The contractor shall furnish the results of the required ultraviolet testing prior to acceptance of the slab drains.

At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be as recommended by the manufacturer to ensure a smooth, chip free cut.





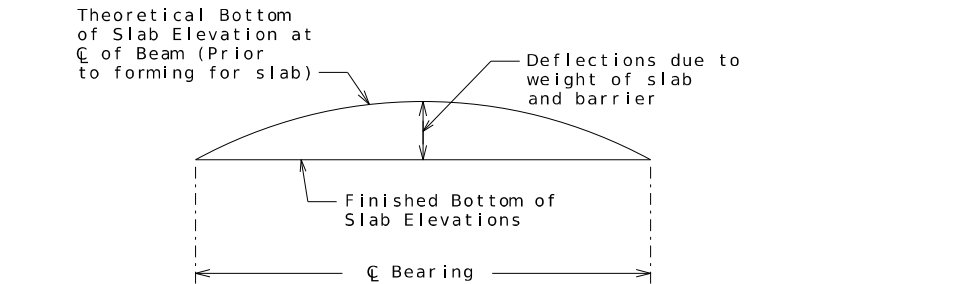
THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

If beam camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

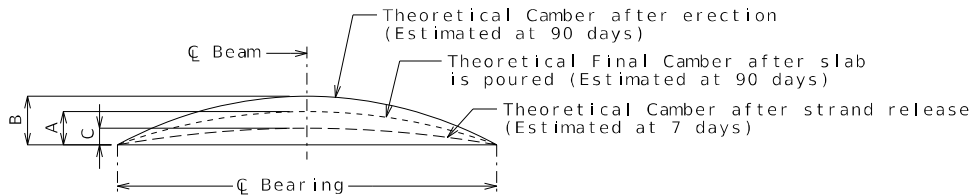
Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete Beam.

Theoretical Bottom of Slab Elevations at Centerline of Beam (Prior to forming for slab) (Estimated at 90 days)					
Beam Number	Span (1-2) (38'-9 3/4" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.
1	919.02	919.11	919.17	919.19	919.18
2	919.16	919.25	919.32	919.35	919.34
3	918.94	919.04	919.11	919.14	919.14
Beam Number	Span (2-3) (38'-9 3/4" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.
1	919.18	919.24	919.27	919.26	919.22
2	919.35	919.41	919.44	919.44	919.41
3	919.15	919.21	919.25	919.25	919.23
Beam Number	Span (3-4) (38'-9 3/4" C Brg. - C Brg.)				
	C Brg.	.25	.50	.75	C Brg.
1	919.22	919.25	919.25	919.21	919.14
2	919.41	919.44	919.44	919.40	919.34
3	919.22	919.26	919.27	919.24	919.18

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM



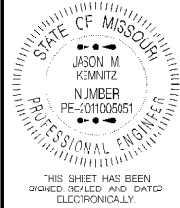
Beam	Span (1-2)			Span (2-3)			Span (3-4)		
	A	B	C	A	B	C	A	B	C
Exterior	2"	2 5/8"	1 1/2"	2"	2 5/8"	1 1/2"	2"	2 5/8"	1 1/2"
Interior	2"			2"			2"		

BEAM CAMBER DIAGRAM

Conversion Factors for Beam Camber (Estimated at 90 days):

0.25 pt. = 0.7125 x 0.5 pt.

CAMBER DIAGRAM, HAUNCHING DIAGRAM AND SLAB ELEVATIONS



DATE PREPARED 11/10/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 12
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9602	

DESCRIPTION	DATE

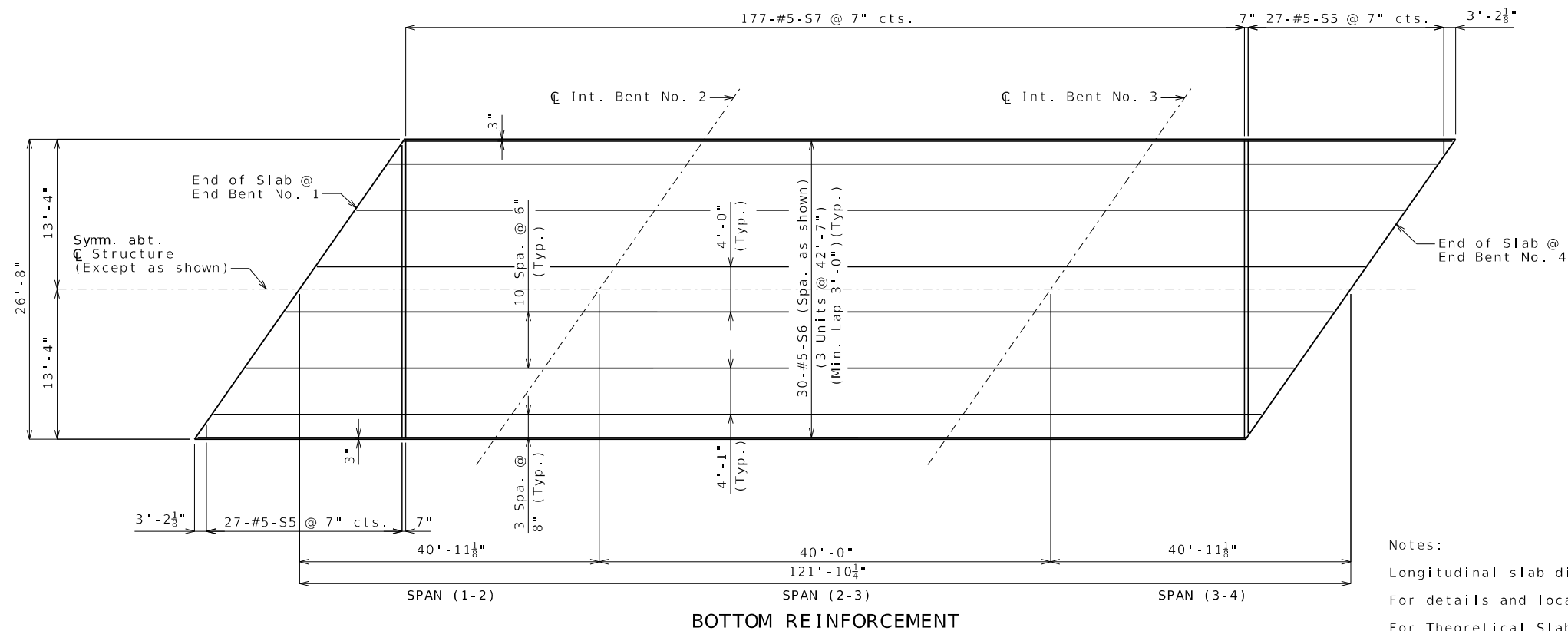
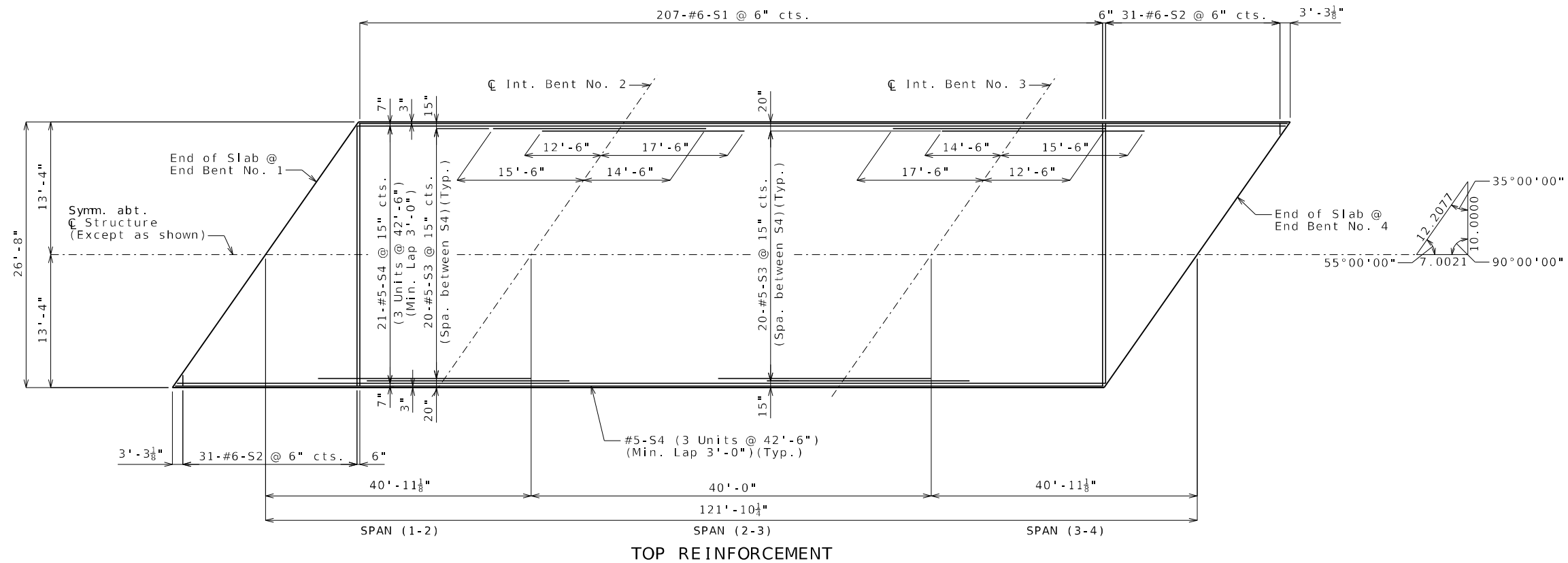
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PLAN OF SLAB SHOWING REINFORCEMENT

Notes:

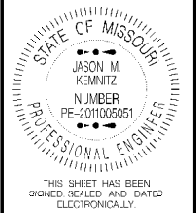
Longitudinal slab dimensions are measured horizontally.

For details and locations of Slab Drains, see Sheet No. 11.

For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 12.

For Section Thru Slab and Slab Pouring Sequence, see Sheet No. 14.

For details and reinforcement of Type H Barriers not shown,
see Sheets No. 15 & 16.



DATE PREPARED

ROUTE	STATE
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DISTRICT	SHEET NO.
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BR	19
COUNTY	

JASPER
JOB NO.

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

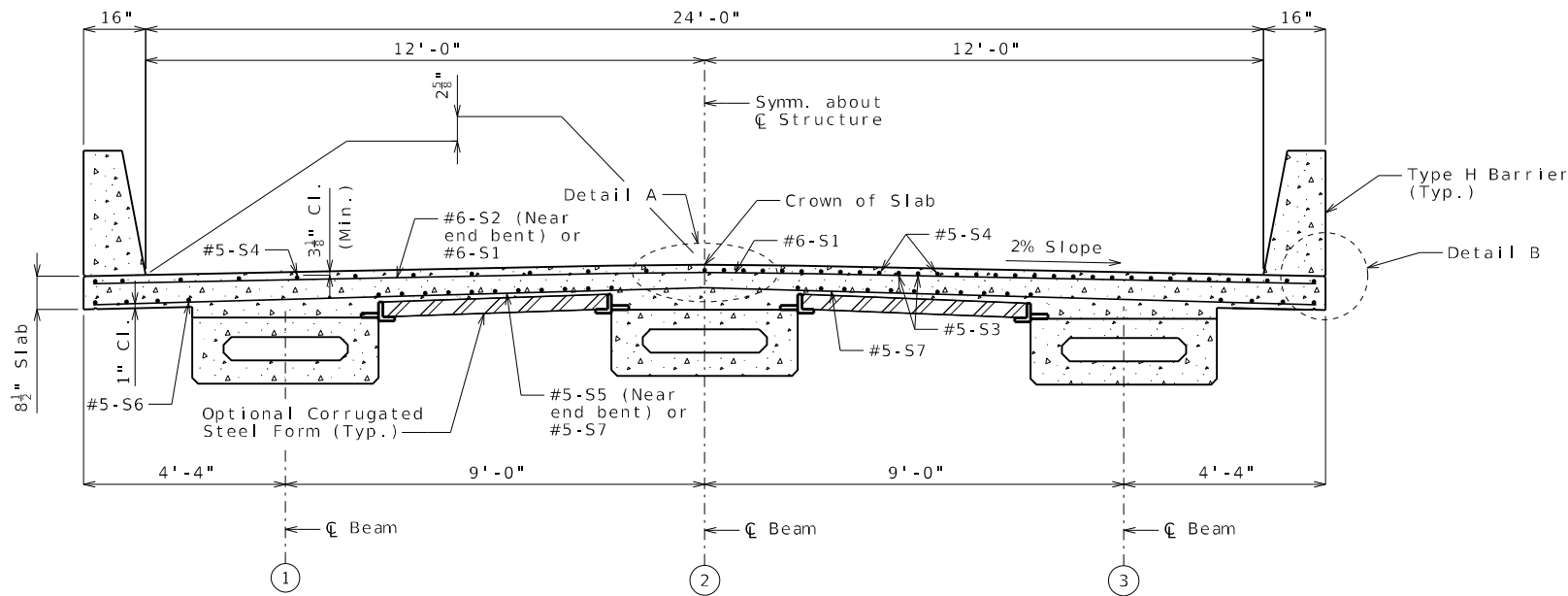
[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
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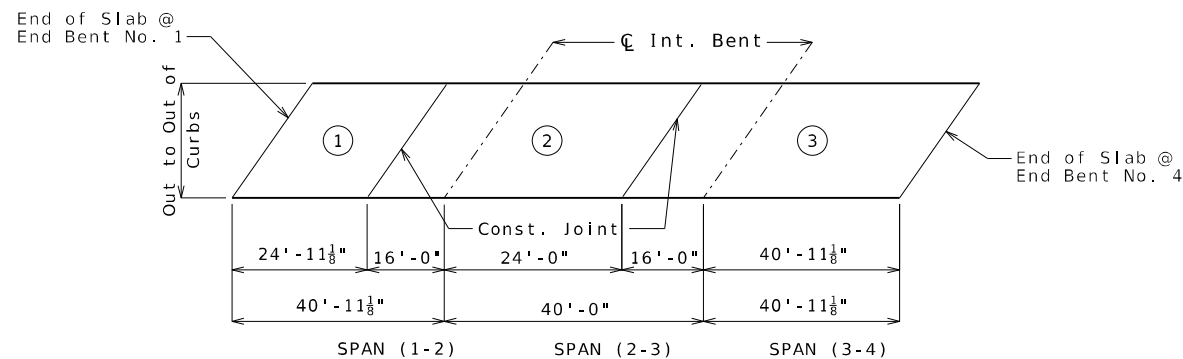
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HALF SECTION NEAR MIDSPAN HALF SECTION NEAR INTERMEDIATE BENT

SECTION THRU SLAB

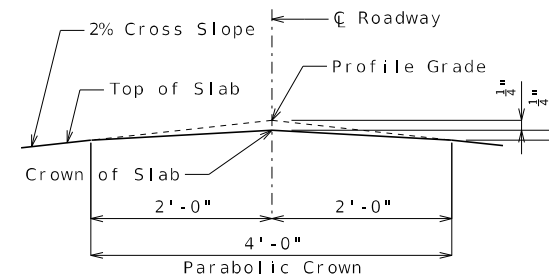


	Sequence of Pours			Min. Rate of Pour Cu. Yds./Hr.
	Direction			With Retarder
Basic Sequence	1	2	3	25
	End to 2	1 to 3	2 to End	
Alternate pours to the basic sequence are subject to the approval of the engineer In accordance with Sec 703.				
Alternate A Pours	1 + 2		3	25
	End to 3		2 to End	
Alternate B Pours	1 + 2 + 3			25
	End to End			

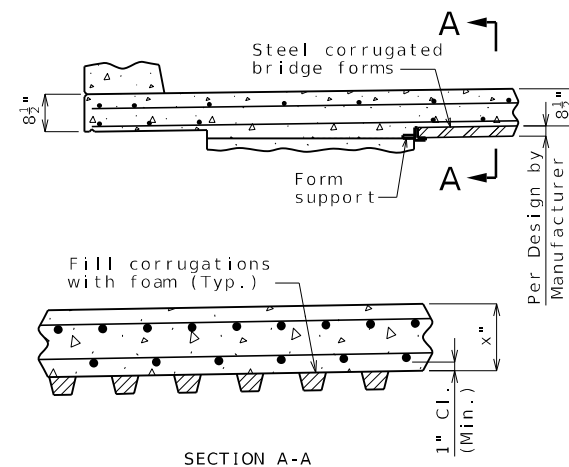
The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

SLAB POURING SEQUENCE

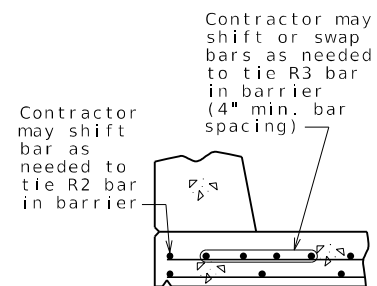


DETAIL A

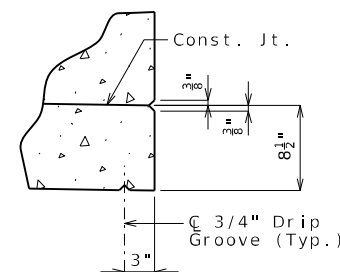


SECTION A-A

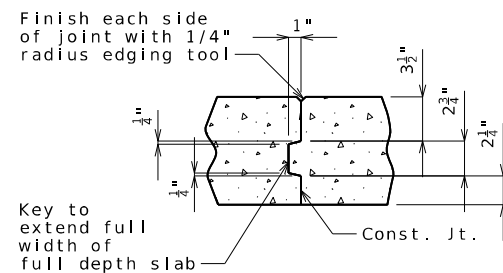
OPTIONAL STAY-IN-PLACE FORM DETAILS



OPTIONAL SHIFTING TOP BARS AT BARRIER

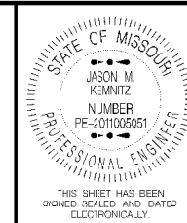


DETAIL B



FULL DEPTH SLAB
SLAB CONSTRUCTION JOINT

SLAB DETAILS



DATE PREPARED
11/10/2025

ROUTE H STATE MO

DISTRICT BR SHEET NO. 14

COUNTY JASPER

JOB NO. JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9602

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

ModOT

WILSON & COMPANY

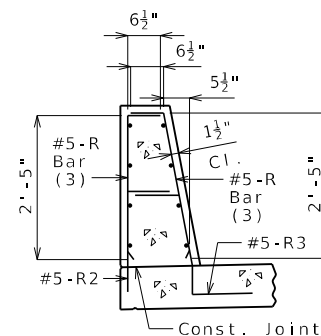
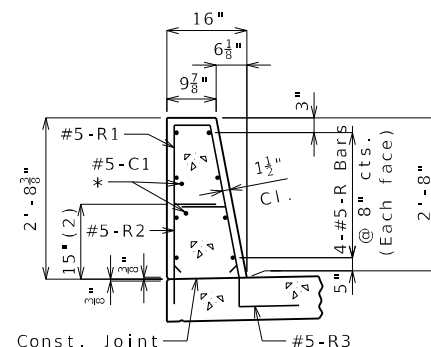
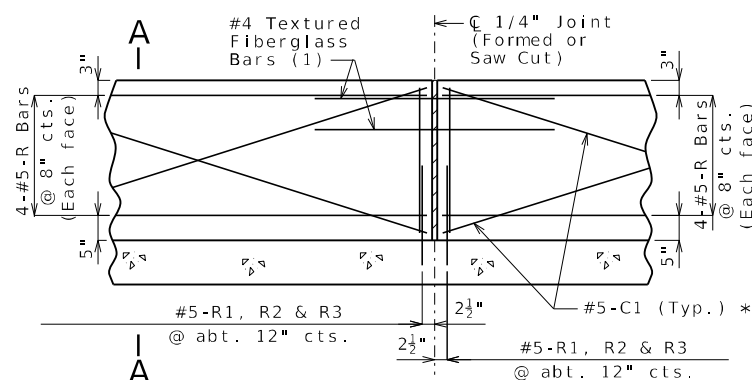
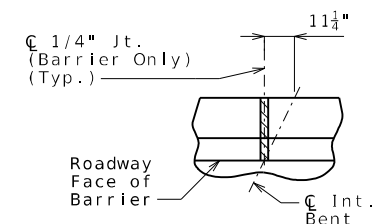
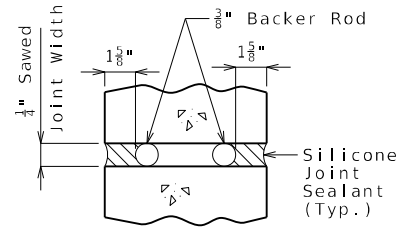
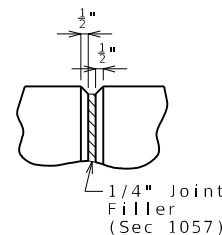
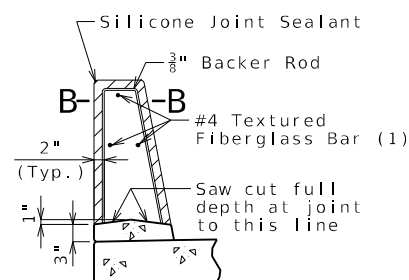
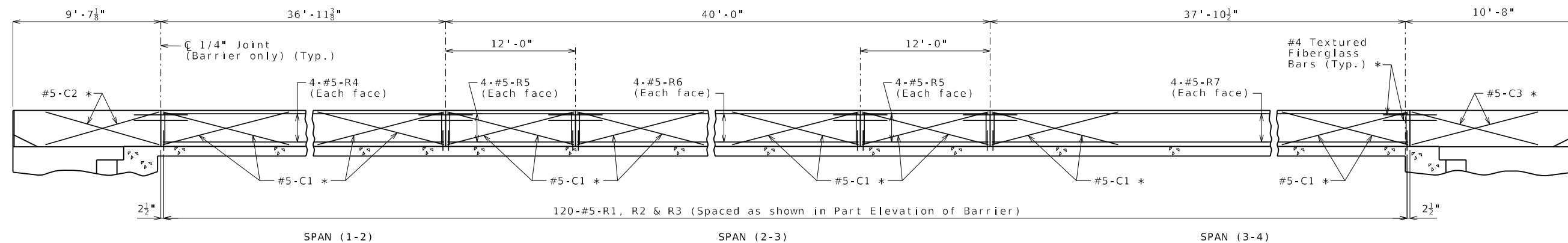
ENGINEERS & ARCHITECTS

800 E 101st Terr., Ste. 200 Kansas City, MO 64131

Phone (816) 701-3100

Fax (816) 942-3013

Missouri Cert. of Authority #2003007599



General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type H Barrier per linear foot.

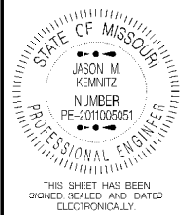
Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type H Barrier.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.



DATE PREPARED
11/10/2025

ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 15

COUNTY	JASPER
JOB NO.	JSR0142
CONTRACT ID.	

PROJECT NO.

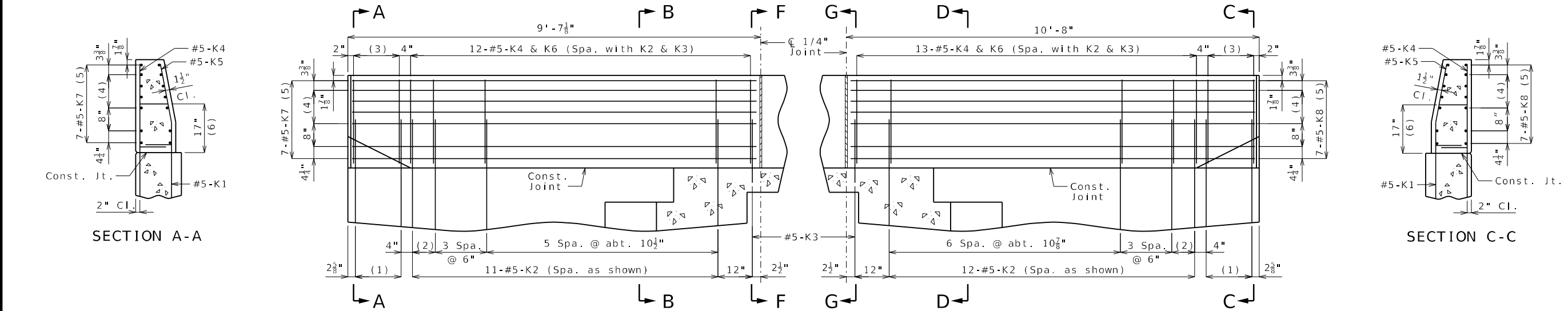
BRIDGE NO.
A9602[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

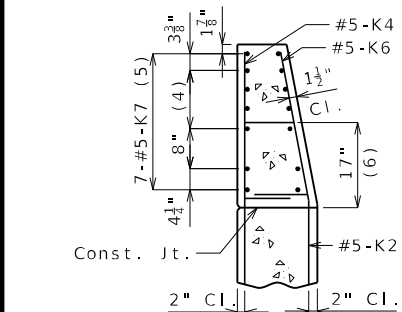
000 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
Fax (816) 942-3013

Missouri Cert. of
Authority #2003007599

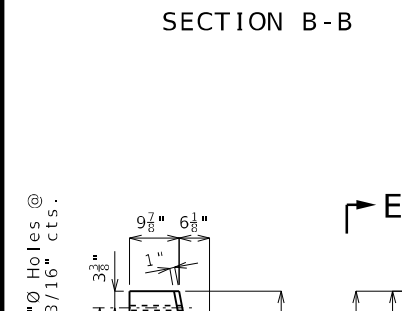
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& COMPANY
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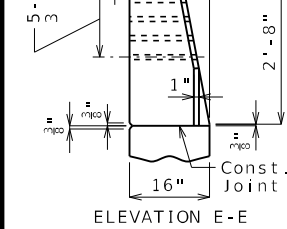
PART ELEVATION



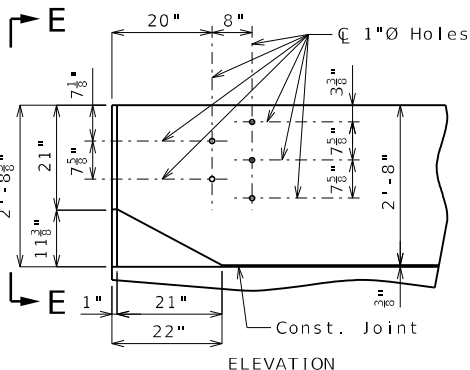
SECTION A-A



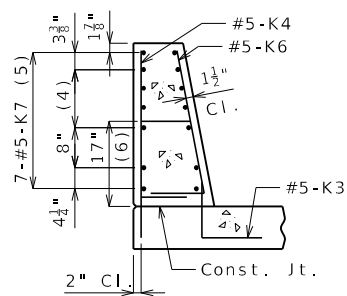
SECTION B-B



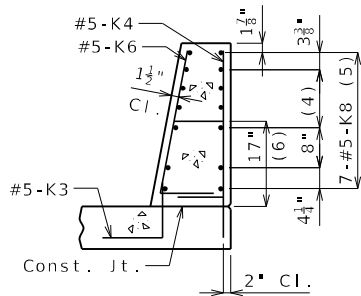
ELEVATION E-E



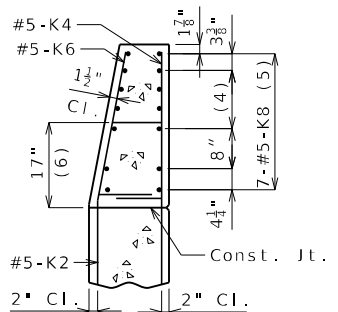
ELEVATION



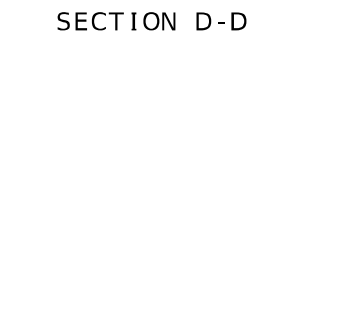
SECTION F-F



SECTION G-G



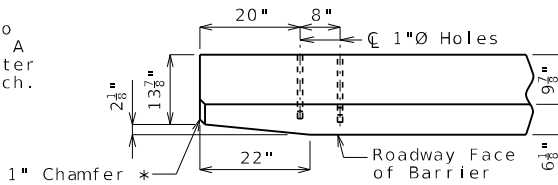
SECTION C-C



SECTION D-D

PART PLAN

* Transition to zero at Type A curb for gutter lines to match.



PLAN

DETAILS OF GUARD RAIL ATTACHMENT

General Notes:

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type H Barrier.

Reinforcing Steel:

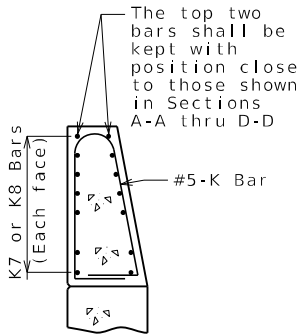
Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

TYPE H BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 16 of 21

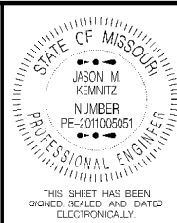


PERMISSIBLE ALTERNATE SHAPES

(Other K bars not shown for clarity)

The K4-K5 and K4-K6 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.



DATE PREPARED 11/10/2025	
ROUTE H	STATE MO
DISTRICT BR	SHEET NO. 16
COUNTY JASPER	
JOB NO. JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9602	

DATE	DESCRIPTION

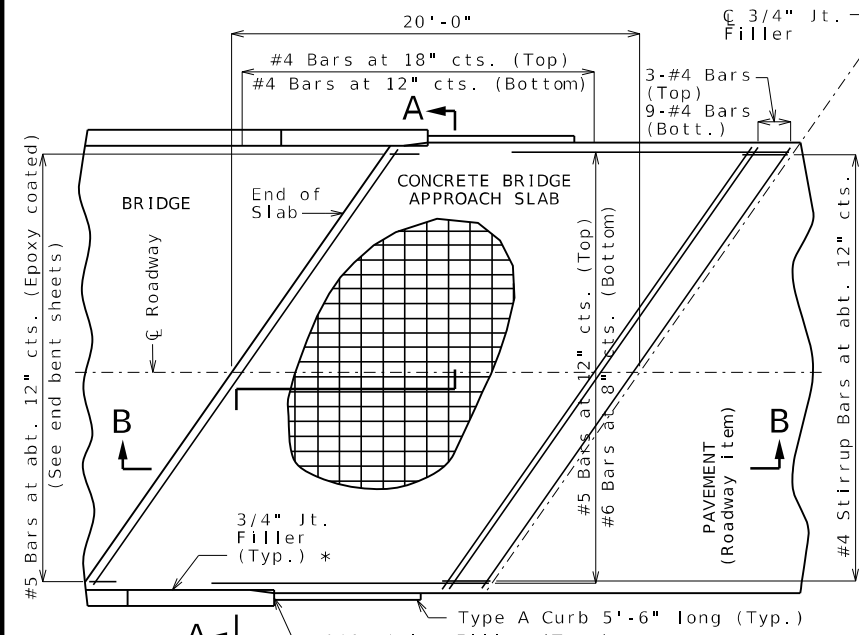
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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JEFFERSON CITY, MO 65102
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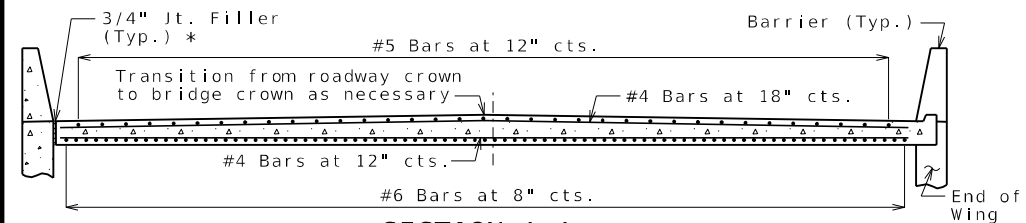
MoDOT

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
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Authority #2003007599

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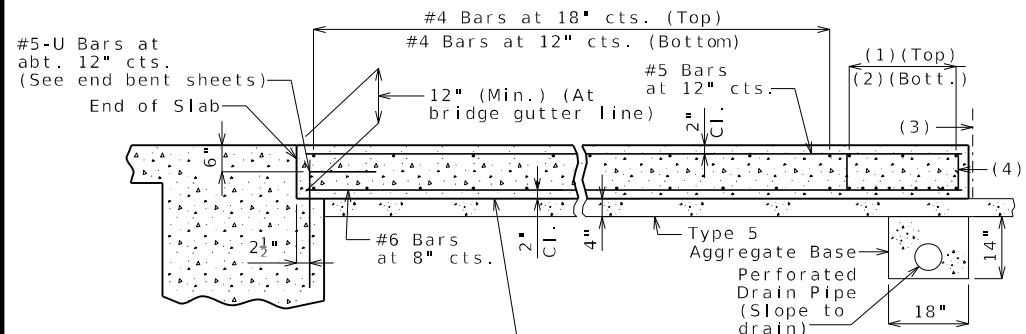


PART PLAN OF SKEWED STRUCTURE
(Square structure similar)

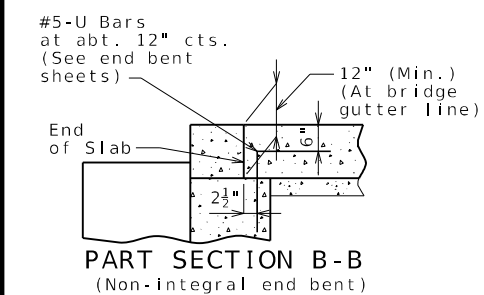


SECTION A-A

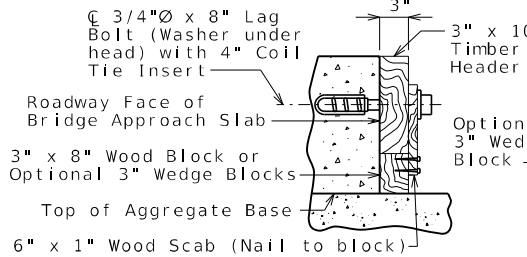
With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION B-B
(Integral end bent)



PART SECTION B-B
(Non-Integral end bent)

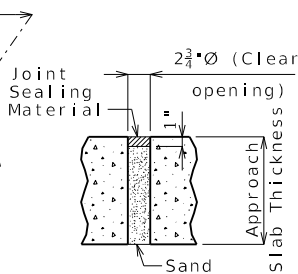


SECTION E-E

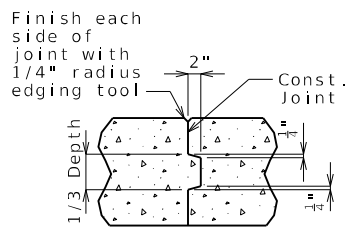
DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.

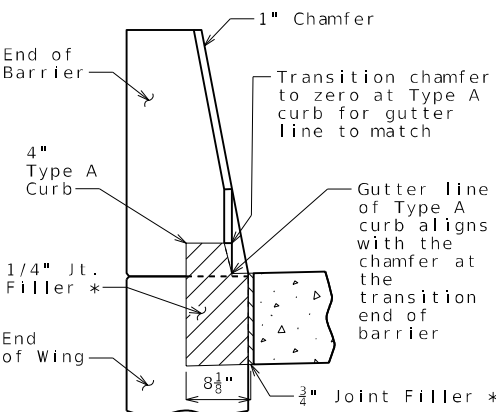
OPTIONAL CONCRETE SLAB



UNDERSEAL ACCESS
HOLE DETAIL
(If required)

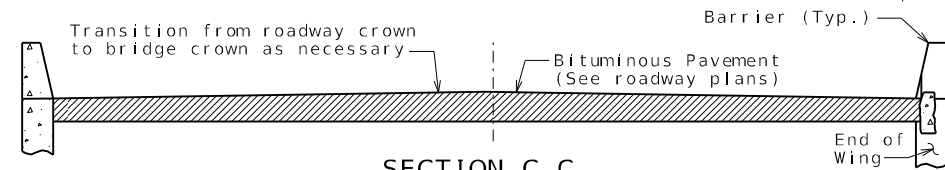


CONSTRUCTION
JOINT DETAIL



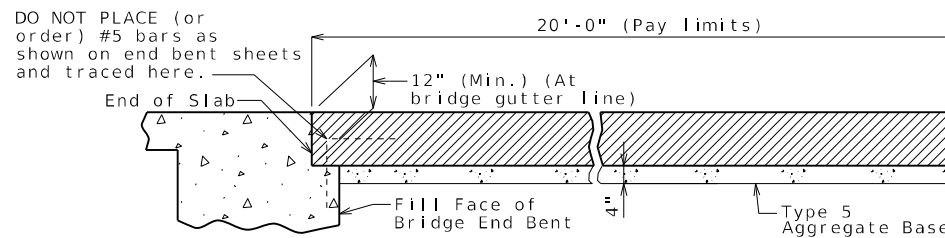
SECTION BETWEEN
CURB AND BARRIER

- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) 3/4" Jt. Filler
- (4) #4 Stirrup Bars at abt. 12" cts.; 2'-0" x 8" (Min.) out to out; Actual length = 5'-10" (Min.); 90° stirrup hook at bottom; Stirrup height (8") and actual length vary due to crown.



SECTION C-C

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION D-D

OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)

Notes For Concrete Slab Only:

All concrete for the bridge approach slab shall be in accordance with Sec 503 (f'c = 4,000 psi).

The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with fy = 60,000 psi.

Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 26 inches for #4 bars, or by mechanical bar splice.

Mechanical bar splices shall be in accordance with Sec 710.

All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

See Missouri Standard Plan 609.00 for details of Type A curb.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

* Seal joint between vertical face of approach slab and wing with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

General Notes:

Contractor shall have the option to construct either slab except as noted.

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

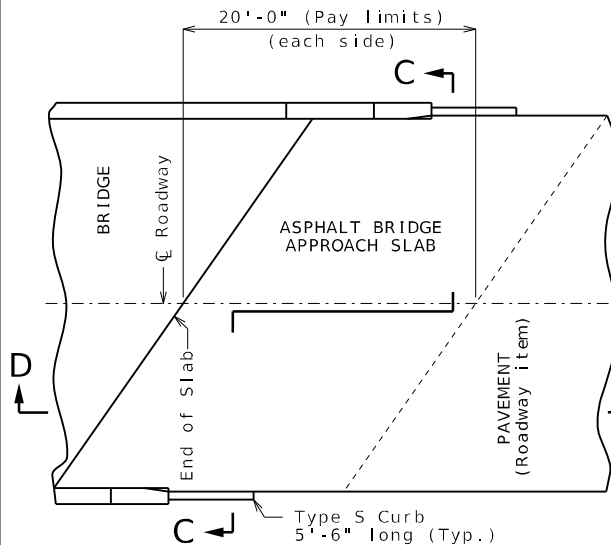
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:

- ☐ Concrete Bridge Approach Slab
☐ Asphalt Bridge Approach Slab

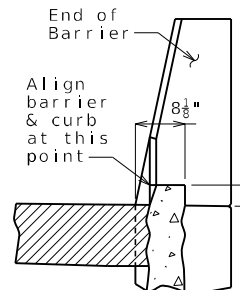
Notes For Asphalt Slab Only:

Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

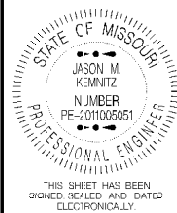
Application of tack is required between lifts per Sec 403.



PART PLAN
(Skewed structure shown,
square structure similar)



4" TYPE S CURB
See Missouri
Standard Plan
609.00 for details
of Type S curb.



DATE PREPARED
11/10/2025

ROUTE
H

STATE
MO

DISTRICT
BR

SHEET NO.
17

COUNTY
JASPER

JOB NO.
JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9602

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

Authority #2003007599

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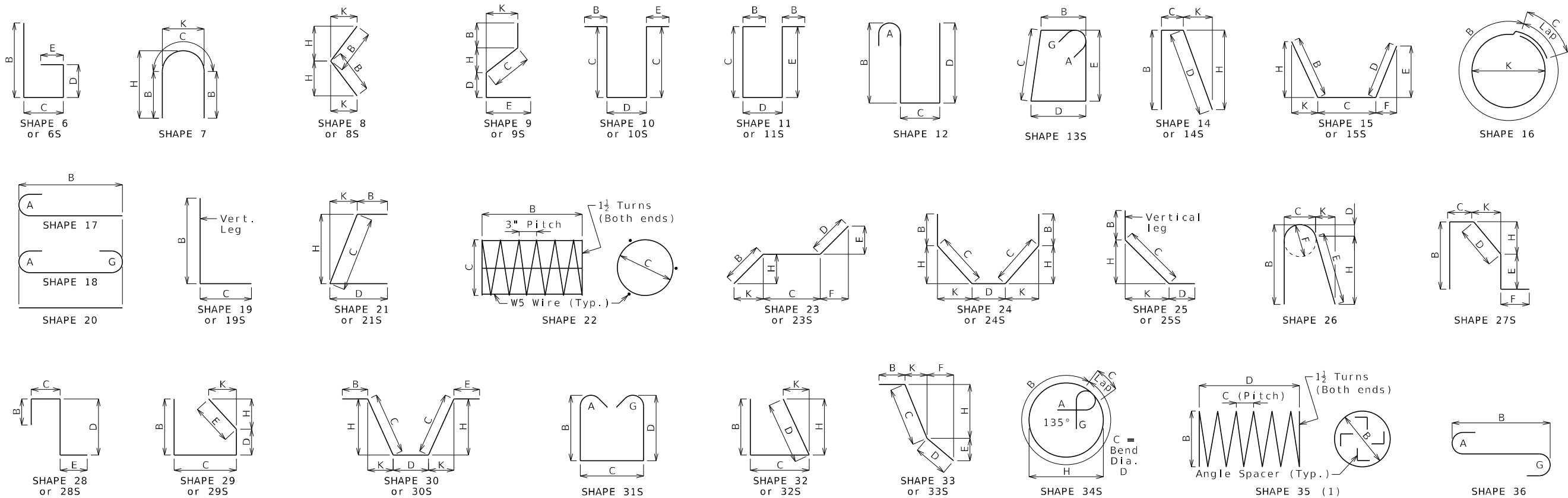
WILSON & COMPANY

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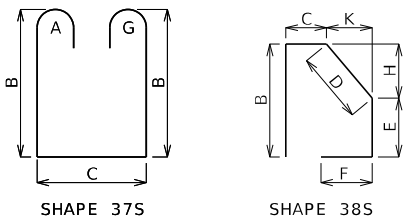
Kansas City, MO 64131

Phone (816) 701-3100

Fax (816) 942-3013



Finished Bend Diameters D and Hook Dimensions						
Standard Pin Bend Shapes						
Size	Case	D	A or G		J	
			90°	180°	180°	
#4	1	3"	8"	6"	4"	
#5	1	3 ³ / ₄ "	10"	7"	5"	
#6	1	4 ¹ / ₂ "	12"	8 ¹ / ₄ "	6"	
#7	2	5 ¹ / ₄ "	14"	9 ³ / ₄ "	7"	
	3	7"	15"	11 ¹ / ₂ "	8 ³ / ₄ "	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 ¹ / ₄ "	10"	
#9	1	9 ¹ / ₂ "	19 ¹ / ₂ "	15 ¹ / ₂ "	11 ³ / ₄ "	
#10	1	10 ³ / ₄ "	22"	17 ¹ / ₂ "	13 ¹ / ₄ "	
#11	1	12"	24 ¹ / ₂ "	19 ¹ / ₂ "	14 ⁷ / ₈ "	
#14	1	18 ¹ / ₄ "	31 ¹ / ₄ "	27 ¹ / ₂ "	21 ⁵ / ₈ "	
#18	1	24"	41 ¹ / ₂ "	36 ¹ / ₄ "	28 ¹ / ₂ "	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135° 180°
#4	2	2"	4 ¹ / ₂ "	4 ¹ / ₂ "	5"	2 ⁷ / ₈ " 3"
	3	3"	5"	5 ¹ / ₄ "	6"	3" 4"
#5	2	2 ³ / ₄ "	5 ³ / ₄ "	5 ³ / ₄ "	5 ³ / ₄ "	3 ³ / ₄ " 3 ³ / ₄ "
	3	3 ³ / ₄ "	6 ³ / ₄ "	6 ³ / ₄ "	7"	3 ³ / ₄ " 5"
#6	1	4 ¹ / ₂ "	12"	7 ³ / ₄ "	8 ¹ / ₄ "	4 ³ / ₈ " 6"
Applicable for all grades of steel.						
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.						



BENDING DIAGRAMS

All dimensions are out to out. (1) Shall be a deformed or plain spiral bar or wire.

Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.

Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure				Entire Bridge	
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	1,400	0	0	860	0	0	1,400	860
5	0	0	0	15,563	6,462	461	0	22,486
6	3,075	0	0	14,282	0	0	3,075	14,282
7	0	0	0	0	0	0	0	0
8	1,647	0	0	805	0	0	1,647	805
9	0	0	0	0	0	0	0	0
10	11,683	0	0	0	0	0	11,683	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	17,805	0	0	31,510	6,462	461	17,805	38,433

All superstructure reinforcing steel shall be epoxy coated unless otherwise specified.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

STATE OF MISSOURI

JASON M. KIMMELT

PROFESSIONAL ENGINEER

NUMBER PE-2011006051

THIS SHEET HAS BEEN
JOINED, REPELLED AND DATED
ELECTRONICALLY.

DATE PREPARED
11/10/2025

ROUTE
H

DISTRICT
BR

STATE
MO

SHEET NO.
18

COUNTY
JASPER

JOB NO.
JSR0142

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9602

DESCRIPTION

DATE

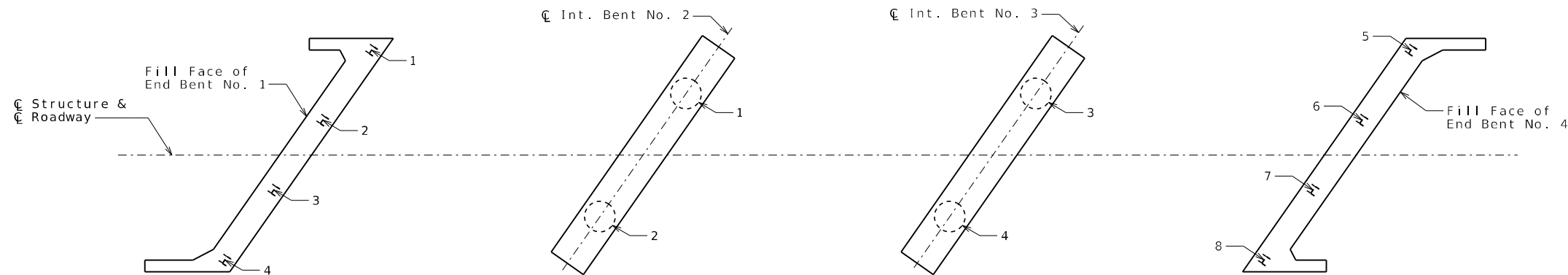
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

800 E 101st Terr., Ste. 200
Kansas City, MO 64131
Phone (816) 701-3100
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JEFFERSON CITY, MO 65102

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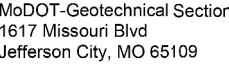
PART PLAN SHOWING PILE & DRILLED SHAFT NUMBERING FOR RECORDING AS-BUILT PILE DATA & AS-BUILT DRILLED SHAFT DATA

[illegible][illegible]

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal
D. PDA test pile
E. Minimum tip elevation controlled
(Use when actual blow count is less than PDA blow count due to minimum tip elevation requirement. A plus sign (+) shall be placed after the PDA nominal axial compressive resistance value indicating actual value is higher than PDA value.)

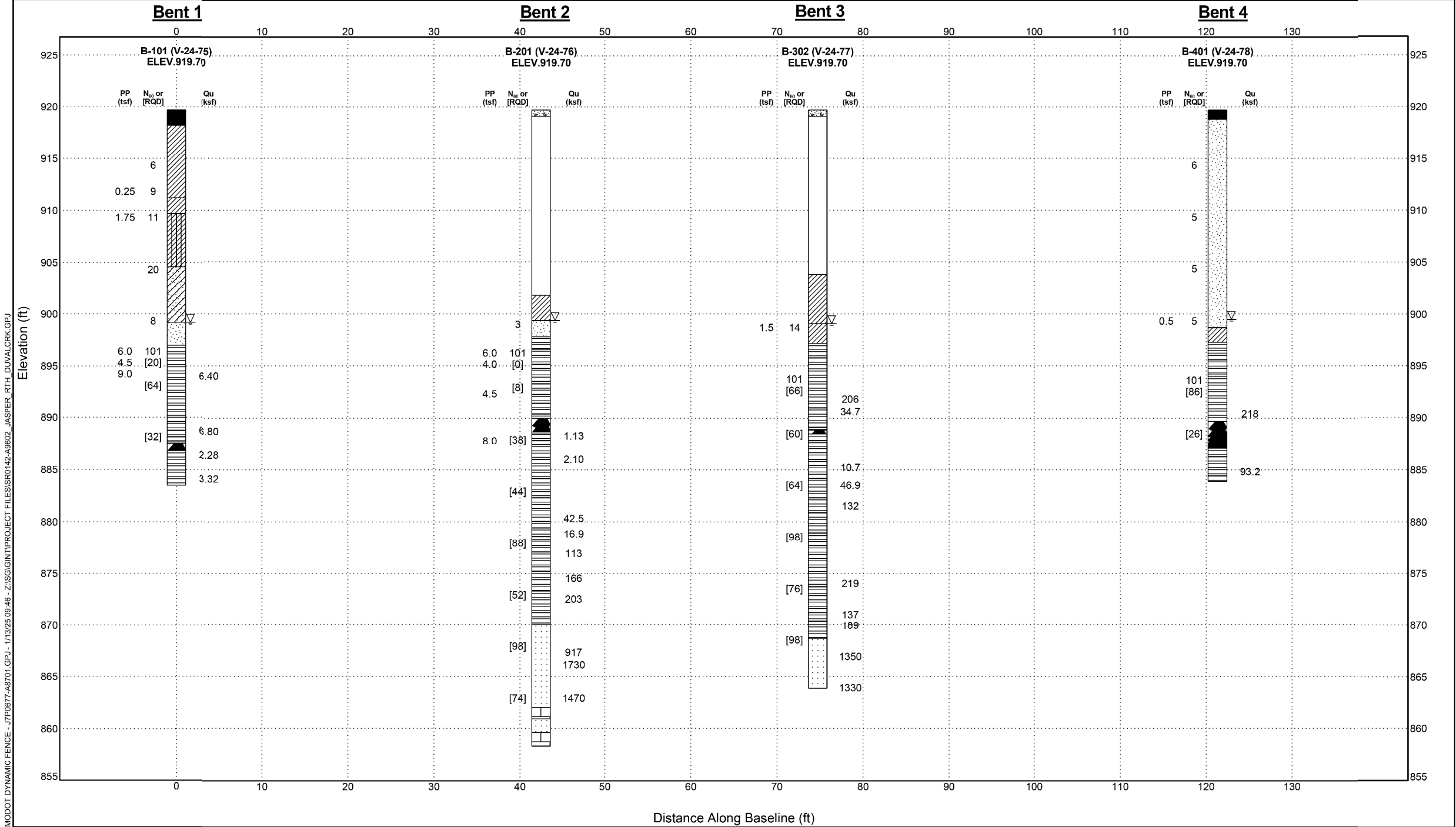
This sheet to be completed by MoDOT construction personnel.

[illegible]



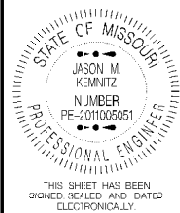
	Asphalt		USCS Low Plasticity Clay		USCS Low Plasticity Silty Clay
	USCS Clayey Sand		USCS Poorly-graded Sand		Shale
	Coal		Concrete		No Core
	Sandstone		Limestone		

PROJECT NAME Bridge Replacement-MGK
PROJECT LOCATION Over Duval Creek
CLIENT _____
PROJECT NUMBER SR0142

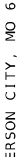


NOTES:

For locations of borings, see Sheet No. 1.



DATE PREPARED	
11/10/2025	
ROUTE	STATE
H	MO
DISTRICT	SHEET NO.
BR	21
COUNTY	
JASPER	
JOB NO.	
JSR0142	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9602	

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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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JEFFERSON CITY, MO 65102
1-800-ASK-MODOT / 999-735-6526

**WILSON
& COMPANY**
ENGINEERS & ARCHITECTS

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